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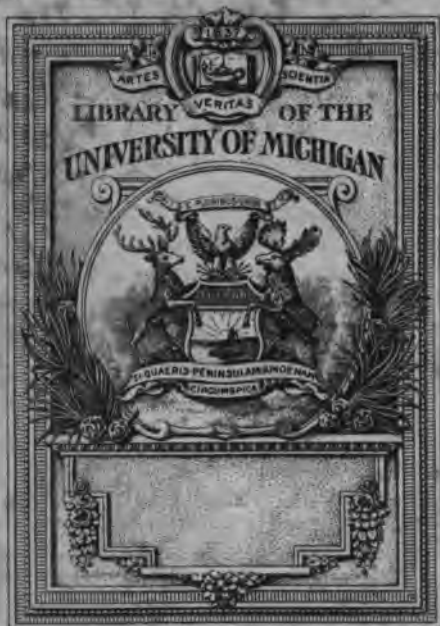
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THE ELEMENTS  
OF  
ECONOMICS

BY

HENRY DUNNING MACLEOD, M.A.

OF TRINITY COLLEGE, CAMBRIDGE, AND THE INNER TEMPLE, BARRISTER-AT-LAW  
SELECTED BY THE ROYAL COMMISSIONERS FOR THE DIGEST OF  
THE LAW TO PREPARE THE DIGEST OF THE LAW OF  
BILLS OF EXCHANGE, BANK NOTES, ETC.  
LECTURER ON POLITICAL ECONOMY IN THE UNIVERSITY OF CAMBRIDGE



IN TWO VOLUMES

VOL. I

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γνώμαι πλέον κρατούσιν ἢ σθένος χερῶν



TO THE  
RIGHT REVEREND HARVEY GOODWIN, D.D.  
LORD BISHOP OF CARLISLE



MY DEAR LORD BISHOP,

I have great pleasure in offering you this work for your acceptance.

A good many years ago I had the inestimable advantage of enjoying your instruction in the University of Cambridge,—an opportunity which, like too many others I fear, I did not duly appreciate at the time. However, you may say

*Vidi ego jam juvenem premeret quum senior ætas  
Mœrentem stultos præterisse dies.*

Nevertheless, your precepts did not die; they only slept for a while; and in due time they bore fruit.

In return for your sage instruction I now offer you a new Inductive Science: a new body of phenomena brought under the dominion of Mathematics: a new order of Variable Quantities brought under the Theory of Variable Quantities in general: the great Science of ANALYTICAL ECONOMICS.

I am,

MY DEAR LORD BISHOP,

Your affectionate Pupil,

H. D. MACLEOD

[Faint, illegible text covering the majority of the page, likely bleed-through from the reverse side.]



## PREFACE

EVERY one of the Great Sciences, in the course of its history, has undergone a complete transformation from the mode in which it was conceived by its founders : and there is also a stage at which it becomes necessary to introduce more powerful and refined methods of investigation, more comprehensive forms of expression, and more minute and exact observation.

A great transformation is now going on in the Science of Political Economy, or Economics, as it may more aptly be termed. Up to the present time there have been two great schools of Economists, each of which has done great, glorious, and immortal services to mankind. But making ample acknowledgment of the priceless services done by the two preceding schools, the fact is that the Political Economy of Adam Smith, Ricardo, and Mill is now exhausted—it is a *caput mortuum* from which no further good can be extracted : it is wholly incapable of grasping the great Economic problems of the present day—CREDIT, BANKING, and the FOREIGN EXCHANGES. In fact, this school of Economists has abandoned all these questions in hopeless despair.

Highly as we may esteem the great Economists of this and other countries, it is essential to remember the character of Economic contests up to the present time. They

have been almost wholly DESTRUCTIVE. The first Economists found the public mind and the administration infected with an immense mass of rooted prejudices, errors, and abuses. Their first efforts were to sweep these away—to beat down and abolish false doctrines of various kinds ; to extirpate bad and mischievous laws interfering with wages, with prices, and the commercial intercourse of nations ; to establish, in fact, freedom of Commerce or Exchange ; and in so far as this, Economists of all schools are agreed.

But while Economists of all schools are agreed on what was the *Destructive* portion of their science, when we come to the CONSTRUCTIVE or POSITIVE Science this agreement is at an end. Nothing can be more astonishing or lamentable than the difference of doctrines, and the antagonism of Economists on almost every point in the science, so as to create a widely spread impression that there is no such intelligible science at all as Economics.

Many, indeed, suppose that the establishment of Free Trade is the end-all and the be-all of Political Economy. But nothing can be more erroneous. The destruction of Protection was only the first-fruits of the struggles of the infant science—like Hercules strangling the serpent in his cradle—and not its consummation. In fact it only clears the ground, and removes obstructions, from the creation of the Positive Science. During the heat, the turmoil, and the dust of the battle to establish a great practical principle, there is no time to attend to the niceties of language, and the exact expressions of science. But now that the great victory is won, and men can sit down in a calm, inquiring spirit, the time has come for a complete, deliberate, and systematic re-survey of the whole science. And, as a matter of fact, there is at the present moment throughout Europe

and America a general reaction and uprising against the school of Political Economy which was founded by Adam Smith and has closed with John Stuart Mill.

Fully admitting the admirable services they have done in time past, their total want of scientific arrangement, their complete ignorance of practical business, their glaring inconsistencies and self-contradictions, and their incapacity to deal with those Economic problems which are of the deepest practical importance at the present day, have produced a general revolt against them. And the most advanced Economists in Europe and America have declared their adhesion to a far wider and more comprehensive system of Economics, which has given the solution of those questions of Credit, Banking, and the Foreign Exchanges which were abandoned as hopeless by the second school ; and by the acknowledgment of all men of business has finally set at rest that terrible Currency Question which has agitated and convulsed this country for three-quarters of a century.

Economic Science is the profoundest and most complicated branch of human knowledge ; and requires a greater variety of knowledge than any other—

(1) It deals with Property of every description ; and in all its forms : consequently a profound knowledge of the Laws of Property, and especially of Mercantile Law, is absolutely indispensable to enable a person to perceive and recognise the existence of the various Quantities with which the science deals.

(2) It deals with all the Exchanges of Property : and consequently a thorough and profound knowledge of Commerce in all its branches is necessary to understand the great mechanism of Exchanges.

(3) A profound knowledge of Mathematics and Physical Science, and of the methods and principles by which the various Physical Sciences have been constructed, is necessary to enable a person to express the Laws which govern the varying relations of Economic Quantities in strict harmony and analogy with the Laws of the other Physical Sciences.

Every science is greater than any of its cultivators. Astronomy is greater than Hipparchus, than Ptolemy, than Copernicus, than Kepler, greater even than Newton himself. So Economics is greater than Turgot, than Quesnay, than Smith, than Ricardo, than Mill. To every one who has done good service let us pay rational respect, but not abject idolatry. He who studies Philosophy must be a freeman in mind. No one, however eminent, is now permitted to be a despot in science, and chain up the human intellect or arrest the progress of thought.

Economics is the noblest and the grandest creation of the human intellect. It is the crown and the glory of the Baconian Philosophy. No one can thoroughly realise the awful sublimity of the genius of Bacon until he studies Economics : because it is the literal realisation of his matchless discovery that the same principles of Mathematical and Physical Science which govern the phenomena of nature equally govern the practical business of life.

Time's noblest offspring is its last.

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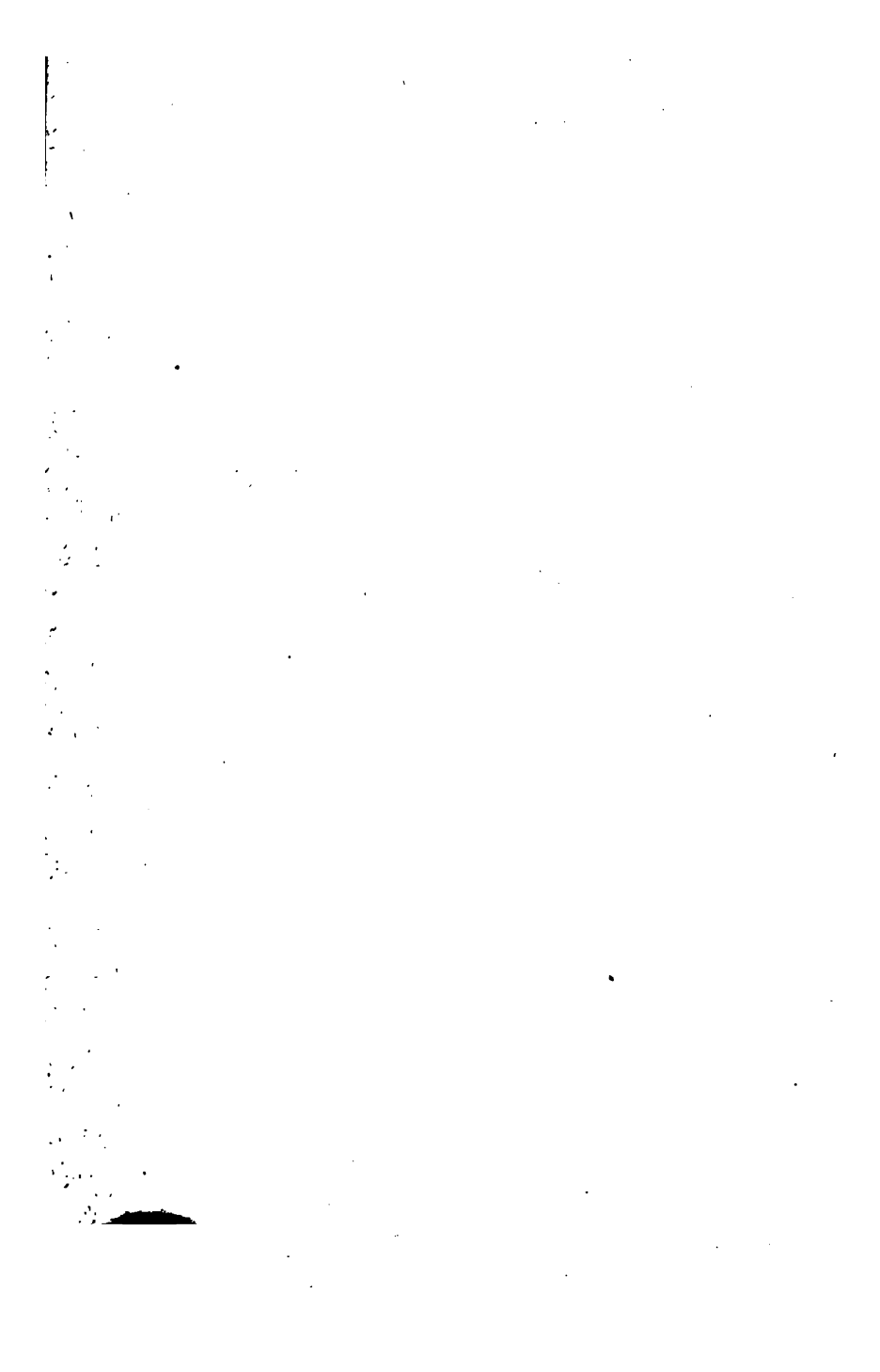
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BOOK I  
HISTORY OF ECONOMICS

I.

B



## CHAPTER I

### ON THE RISE OF INDUCTIVE SCIENCE IN MODERN TIMES

1. IN the latter half of the sixteenth century a wondrous change came over the spirit of the nation which then held the foremost place in Europe in culture and civilisation.

#### *Fall of the Empire of the West, and Renovation of the Population of Italy*

After twelve centuries of existence, the Niobe of nations had fulfilled her destiny. By the middle of the fifth century her Empire, which had extended from the Euphrates to the Tagus, and from the Forth to the cataracts of the Nile, had seen province after province rent away from her, and had shrunk within the limits of Italy. Rome, which had not seen a foreign foe for seven centuries, had been four times sacked by the barbarians. The free yeomen of the bright days of the republic had perished in the civil wars. The land was parcelled out among a small number of gigantic proprietors, and cultivated exclusively by slaves. Tillage had nearly ceased, and all the supplies of corn came from the provinces. With the loss of these the supplies failed, and the population was reduced to the lowest depths of misery. War, pestilence, and famine desolated whole provinces. The army was a host of mercenary barbarians. In 476 they peremptorily demanded that one-third of the lands of Italy should be divided among them. The youthful Emperor had the spirit to refuse this demand, and took refuge in Pavia, where he was immediately besieged: the town was captured and pillaged: and the Emperor laid down his uneasy crown. The senate ignominiously surrendered the vacant authority to the Emperor of the East; and Odoacer, the military commander,

reigned in Italy. One-third of the lands were immediately confiscated and divided among the successful mutineers.

Sixteen years afterwards, a new swarm of barbarians under Theodoric conquered the country and effected new confiscations and settlements ; and for thirty years the land enjoyed peace and prosperity under the reign of the wise Theodoric. But in 568, Alboin, king of the Lombards, introduced a new host, and founded a dynasty which lasted two centuries, until overthrown by Charlemagne and the Francks : and they again were succeeded by the Germans, in 962, under Otho the Great.

Thus, during the space of five centuries, Italy was overrun by five successive hosts of invaders : but with great sagacity they left the Roman municipal institutions untouched : so that while the forms remained the population was almost entirely renewed. Moreover, the invaders on all occasions favoured emancipation, so that by the eleventh century slavery had died out, and the land was once more inhabited by a free people.

#### *Renewal of Intellectual Energy and Rise of the Arts*

2. Thus, after the gestation of five centuries, the conquering races and the conquered had become amalgamated into one people, and a new nation arose which exhibited such a transformation as had never before been exhibited in the history of the world. The land which had been held by the most prosaic and unimaginative of nations became the mother of all the arts and of all the sciences.

The cities of Italy, enjoying peace and settled government under the Germanic Emperors, rapidly progressed in prosperity and wealth, and began to extend their commerce throughout Europe, and became habituated to self-government under the decaying house of Franconia.

But when the Hohenstaufens, a more energetic race, succeeded, Frederick Barbarossa, one of the ablest sovereigns of the Middle Ages, attempted to reimpose upon them the yoke of the Empire. The Lombard cities took up arms in their own defence. Barbarossa was at first successful : he captured Milan and razed it to the ground. But he was finally vanquished in 1176, on the field of Legnano ; and Italy became all but nominally independent.

The energies of the people being thus aroused, soon developed themselves in every direction. First Architecture, then Sculpture, then Painting, then Poesy, were called into existence; and during the space of four centuries Italy produced such a galaxy of illustrious names in the Arts as no other country can boast. The powers of Nature seemed to culminate in Michael Angelo, and then decayed.

The day that Michael Angelo died, Galileo was born.

### *Revival of Jurisprudence*

3. At the same time the study of Jurisprudence revived. The great Code of Justinian had been published during a short period while Italy was re-united to the Eastern Empire, and then Justinian caused his Code to be adopted throughout the whole Empire. But the original Latin soon fell into desuetude in the East, and was superseded by Greek compilations: and was finally set aside by the revised Code called the Basilica, published in Greek in the ninth century.

In the troubled state of Italy the study of Jurisprudence was naturally much neglected. Each separate race of invaders had its own code of laws: founded, however, on preceding Roman Codes: and every nationality was allowed to follow its own laws. Consequently, though the Code of Justinian never ceased to exist, its effects were much weakened. At the beginning of the twelfth century a great school of Law was founded by Pepo and Irnerius at Bologna, and for two centuries produced an illustrious line of Jurists, to which students flocked from all parts of Europe.

### *Rise of the Scholastic Philosophy*

4. But the most remarkable and original product of the middle ages was the Scholastic Philosophy: and as the Baconian Philosophy was the reaction against it, it is necessary to give a brief outline of it.

Socrates was the first to perceive that all systematic reasoning in science and philosophy must be based upon General Concepts, Ideas, or Definitions of terms. The dialogues of Plato are full of discussions on the meanings of terms,—the

Good, the Beautiful, the Holy, the Just, and numerous others. If any action was said to be Holy or Just, it was first of all necessary to define the Holy, or the Just. Thus the Platonic dialogues are full of Inductive reasonings as to fundamental Concepts. Now when a certain Moral Concept is formed in the Mind it does not by any means follow that it should be realised in any actual person : nor that it should be seen in any action. It is quite possible to form a Mental Concept of the Holy or the Just, without there being any holy or just person, or any one doing a holy or just action.

From this it followed that General Concepts might have an actual and real existence without being embodied in any concrete form.

Plato argued by analogy from the Moral to the Physical world. He held that all nature was framed in accordance with certain Ideas, or Notions existing in the Divine mind, which were quite independent of any particulars.

Thus there was an Idea or Notion of a Man, Horse, &c., before there was any actual Man or Horse. Though he was rather staggered at the notion of there being Eternal Ideas of Mud, Hair, Dirt, &c.

Thus besides the world of Spiritual Existences, Plato held that there is also a distinct world of invisible, self-existent, eternal, and unchangeable Ideas. These, with some variations, were the doctrines which were called **Realism** in the middle ages.

Aristotle, the disciple of Plato, combated these doctrines in several of his works. He maintained that these Universals, as they were called, could not be separated from their Particulars : he denied that Universals could have a separate reality from the Particulars. Hence the Universals were mere Names for certain Particulars. This somewhat modified was termed **Nominalism** in the middle ages.

The Greeks were the first to discover that there is an innate power of discerning **Truth** in the human mind : and that there is a science of Truth, which can be reduced to a systematic form. This Science is termed **Logic**. Zeno, of Elea, was the first to employ this science, to prove the fallacy of the arguments of his opponents. It was much used by Socrates and



Plato in their discussions and dialogues : but Aristotle was the first to reduce it to a systematic form. He first showed that all error can be exposed and all truth set forth in a systematic form.

Logic or Dialectic, therefore, in the hands of Aristotle was a mere method of testing the truth of philosophical systems : he never supposed that Syllogism could be applied to the discovery of the truths of Physics. Both he and Plato foreshadowed and adopted the Inductive method for the discovery of truth ; in which, however, he was not very successful.

The Scholastic Philosophy of the middle ages was the attempt to combine the Idealism of Plato with the Logic and Dialectics of Aristotle : but unfortunately it attempted to apply the syllogistic method to the discovery of truth.

5. When Christianity became known to philosophers the Platonists perceived that there was much in it in accordance with their system. They were the first of philosophers to adopt it, and they endeavoured to combine it with their own philosophy.

As the general intellect decayed in the decadence of the Western empire all originality vanished. The highest literature fell into oblivion. Theology was taught from books ; and consequently writers confined themselves exclusively to commenting on the usual text-books. St. Augustine and some of the Latin fathers were still read : but the whole course of philosophy consisted of some parts of Aristotle's Organon, Plato's Timæus, and a few tracts of Cicero and Seneca. A few lessons in grammar and logic, with just enough mathematics and astronomy to calculate Easter, were the highest instruction. The age of Charlemagne was the nadir of the human intellect. Soon after him appeared the first original genius of the middle ages. Paschasius had asserted the doctrine of transubstantiation. John Scotus Erigena was employed to refute it. He was a Realist and a Mystic : his work marked the revival of metaphysical speculation.

About the middle of the eleventh century Berengar, Archdeacon of Tours, revived the eucharistic controversy, adopting the same side as Erigena. Berengar's doctrines, founded upon rea-

soning, and supported by much profane learning, greatly agitated the Church; and he was combated by Lanfranc in the name of authority, and afterwards by Anselm, who endeavoured to reunite the claims of Reason and Faith. These metaphysical controversies about the deepest mysteries of faith revived the old contests of Plato and Aristotle.

Realist views were then generally current; but about the same period Roscelin, Canon of Compiègne, strongly adopted the Nominalist side. In discussing the mystery of the Trinity he gradually lapsed into Tritheism. The Church was shocked and alarmed, and in 1092 he was condemned by the Council of Soissons, and obliged to leave France. The impiety which resulted from Nominalism produced a reaction in favour of Realism. Anselm and William of Champeaux thundered against him on the Realistic side.

But a doughty champion revived the fortunes of Nominalism. Abelard pointed out the absurd consequences of Realism, and William retired from the field. Three thousand disciples carried Abelard's fame and doctrine into every country of Europe. But the rage for definition and dialectics led Abelard into the heresies of Berengar and Roscelin, and he was silenced and consigned to the cloister.

These controversies had fairly roused the spirit of metaphysics, and several champions appeared on either side: when an unexpected discovery added tenfold fuel to the flame.

6. Athens had been for centuries the University of the Roman world. The narrow policy of Justinian closed her schools, and the teachers were scattered throughout the world. A learned colony had settled at Edessa on the borders of Syria and Mesopotamia, and founded a flourishing school of Greek science and philosophy. In process of time Edessa fell before the conquering Moslem. The dynasty of the Abassides came from Khorassan, where learning had long been held in honour. Almanzor, and his successor Haroun al Raschid, founded schools at Bagdad, and diligently sought out the monuments of Greek learning, and caused them to be translated into Arabic; and its literature was enriched by translations of the Greek works on Mathematics, Astronomy, Mechanics, Euclid, Ptolemy, Hippo-

crates, Galen, Dioscorides, and especially Aristotle and the neo-Platonists.

Africa and Spain rejected the Abasside dynasty, but equally cultivated the arts and sciences. Colleges and schools were founded in every city of Spain. Magnificent libraries contained translations of all the Greek masterpieces. Thus for three centuries, while Europe was plunged into the lowest depth of barbarism, the arts and the sciences flourished in the Mahomedan world from Khorassan to the Ebro. Then arose a great series of Moslem doctors and philosophers, Alkendi, Alfarabi, Gazali, and especially Ibn-Sina, Ibn-Badja, Ibn-Thofail, and Ibn-Roshd, known to the infidels respectively as Avicenna, Avempace, Abubazer, and Averroes. These men annotated and commented upon the entire works of Aristotle.

7. The same spirit of inquiry agitated the Jewish world. In the eighth century the Karaites broke away from the Talmud, and asserted the right of Reason to judge Faith. To combat the growing heresy, the school of Sora was founded near Bagdad, and they were equally obliged to cultivate dialectics. Saadia (892-943) made a strong effort to reconcile Reason and Revelation.

The Jews in Spain were equally active, and the philosophy of Ibn-Gebirol (Avicebron), rejected by his own nation, convulsed the Christian schools. In the twelfth century an orthodox reaction began. Juda Hallevi denied the power of Reason to judge religious mysteries. Jewish philosophy reached its highest point in Moses Maimonides.

Thus by a curious coincidence the Jewish, the Christian, and the Mahomedan worlds were simultaneously immersed in dialectics, and agitated and convulsed by the perennial conflict between Reason and Faith.

8. While the minds of the three great religious communities were thus distracted, some rays of Mahomedan learning penetrated into the Christian schools. A few travellers had brought back specimens from the East. The Crusades still further stimulated intercourse between the hostile creeds. Arabic versions of Aristotle were imported along with bales of mer-

chandise into Sicily, Italy, and the south of France : and some diligent scholars translated the Arabic works of science into Latin. Raymond, Bishop of Toledo (1130-1150), caused several of the works of Avicenna, Gazali, and Alfarabi to be translated into Latin : and Michael Scot and others translated the Arabic versions of Greek works into Latin. All this mass of new literature gave an immense stimulus to metaphysical controversy. The intoxication of mind produced a flood of discussion which threatened to be fatal to orthodoxy. The first scholastics professed themselves devout sons of the Church, but the inevitable tendency of free inquiry was to lead them further and further away from orthodoxy. The doctrines of Avicenna, Averroes, and Avicbron convulsed the Christian schools ; and the teaching of Aristotle seemed to lead to the plainest Pantheism and Materialism.

The Catholic Church was now thoroughly aroused and alarmed. It was indeed shaken to its foundations : and as Aristotle seemed the original source of all these heresies, he was formally condemned by the Church in 1204, 1209, and 1215. Thus in all the three religious communities the appeal to Reason was dangerous to Faith : and the Aristotelian philosophy was a terror equally to orthodox Jews, to orthodox Mahomedans, and to orthodox Catholics.

The Catholic Church seemed on the very brink of destruction : the scandalous lives and the venality of the Court of Rome shocked all Christendom. Every country swarmed with heretics in revolt against the tyranny of the priesthood. But the Pontiff was equal to the crisis. The Crusades had familiarised the followers of the meek and gentle Jesus with the idea that the slaughter of infidels was grateful to the Creator. And heretics were worse than infidels. Accordingly Innocent III. carried fire and sword into the fairest provinces of Christendom.

9. A great revolution was at hand, and the Church was saved in the very crisis of her existence. In the same year, 1206, Dominic, a Spaniard, founded an order of mendicant friars at Toulouse, and Francis, at Assisi. They were bound to devote themselves to poverty and preaching. The new orders spread with marvellous rapidity, and in a very few years all

Europe was filled with them. They were devoted to the defence of Catholic dogma. Each order cultivated the most profound learning, and studied the pagan philosophers to profit by them and to confute them. The rival fraternities vied with each other in celebrated names. The Franciscans boasted Alexander de Hales : the Dominicans, Albert of Cologne, surnamed the Great. These two, with William of Auvergne, Bishop of Paris (1218-1248), consolidated that system called the Scholastic Philosophy, which saved Catholicism from the heretical wisdom of the Arabians.

The greatest of the three was Albert, and twenty folio volumes attest his industry. He commented on all the works of Aristotle. Albert perceived that General Concepts are at the base of all philosophies. He held that they existed independently of the mind. But he did not recognise a being called Humanity, independent of actual human beings : nor of Animality beyond actual animals. He held that the genus is an essence which only exists in particulars, but does not depend upon them. It emanates from the mind of God. Thus humanity and all other essences are the Concepts, Ideas, or Forms existing in the Mind of God, realised in individual beings. Hence to find the origin of the Universal it was necessary to go back to the First Cause. Albert was thus a modified Realist. All Realities were supposed to exist as Concepts of the Divine Mind : and also all Concepts of the Divine Mind had corresponding realities.

By this means all knowledge of external nature was to be found in the Concepts or Ideas of the Mind : and these mental abstractions were supposed to be real physical existences.

Now Theology is the creation of the Human Mind, and consists in abstract Concepts : and these were formed into a logical system of Dogmatic Theology. This being granted, these great master minds saw the prodigious use of the Aristotelian Logic in forming the subject into a great scientific system. In fact, if the freedom of inquiry could be curbed, and opinion restrained to certain orthodox Fundamental Concepts, there was nothing like the Aristotelian Logic for reducing them to systematic form. Hence the Aristotelian Logic, instead of being adverse to the Church, was now its greatest defender.

The greatest of all the Scholastic Doctors was Thomas Aquinas, the pupil of Albert of Cologne : and his works are the very incarnation of the Scholastic Philosophy.

It was then supposed that Theology comprehended every other science : and Physics was framed in the same spirit as Theology. All Physical Science was supposed to be founded on certain Mental Concepts which were supposed to be real. But all reference to Nature herself was prohibited, as savouring of heresy : and from fear of contradicting some Doctrine of Theology. Aristotle's theory of Matter and Form was adopted : the Matter being the physical substance and quality of things : and Form being that which distinguished them into different classes.

Thus all Physical Science was reduced to Syllogisms : and it was supposed that by varying these all Physical truth might be discovered. The system was therefore entirely *à priori* : it began with the highest abstractions—pure fictions of the mind—and reasoned deductively from Causes to Effects. By this means the Idealism of Plato, together with the Logic of Aristotle, was utilised in the service of the Church, and the union of the Church and Philosophy was irresistible, and enthralled the human mind for three centuries.

Thus the Logic of Aristotle, which was never intended as anything but a defence against philosophical error, was turned into a system for the discovery of truth and scientific investigation. Aristotle himself would have been the first to protest against this misuse of it. The labours of the men were prodigious, but they were utterly barren of results—as barren as the labour on the treadmill.

*Reaction against the Scholastic Philosophy—Rise of Inductive Science*

10. At length, after centuries of this barren labour, men began to discover that the whole method of procedure was erroneous ; and that instead of reasoning from Causes to Effects, they must adopt the opposite course, and ascend from Nature and Effects to Causes.

As is usual in such cases, one profound genius anticipated the truth three centuries before the rest of mankind. In the

middle of the thirteenth century a Franciscan monk at Oxford, **Roger Bacon** (1202—1291) had completely anticipated the spirit and the main outlines of the Inductive Philosophy of **Francis Bacon** of the seventeenth century. But we must pass over his Experimental Philosophy, because in this brief outline we can only notice *movements* of the human mind, and not isolated efforts, however illustrious, which perished with the individual.

We can only observe the marvellous sagacity with which Roger Bacon enforced the doctrine that Mathematics is the key to all the sciences.

He says—‘And for this reason it follows that Mathematics is the first of the sciences, without which the others cannot be understood.

‘For he who knows not Mathematics cannot know any other sciences : what is more, cannot discover his own ignorance, or find out its just remedies. So it is the knowledge of this science that prepares the mind and elevates it to a well-authenticated knowledge of all things.

‘These reasons are of universal application : to descend to particulars would be nothing more than to show how all parts of Philosophy are learned by the application of Mathematics ; in other words, that the sciences cannot be known by logical and sophistical arguments, as is ordinarily the case ; but by mathematical demonstrations descending into the truth and operations of the sciences and regulating them ; for without mathematics they cannot be understood or set forth, taught or learned.’

‘For without Mathematics nothing worth knowing in Philosophy can be attained.’

Bacon not only anticipated the whole method of the Experimental Philosophy, but perceived that Mathematics rules all branches of Philosophy, which even the great Galileo did not understand at first.

But the human mind had not yet revived its powers of independent thought. The Aristotelian philosophy, being allied with the Church, prevailed. And Experimental Philosophy, being born three centuries before its due time, died of inanition ; and the human mind sank under the thralldom of Thomas Aquinas and Scholasticism.

11. That sublime genius, **Leonardo da Vinci** (1452—1519), equally distinguished in the Arts and in the Sciences—in painting, sculpture, poetry, and music ; botany, anatomy, mathematics, mechanics, and engineering—was the founder of Inductive Science in modern times. His writings still almost entirely remain in manuscript ; but the short fragments of them which have been published, says Hallam, ‘are more like revelations of physical truths vouchsafed to a single mind, than the superstructure of its reasoning upon any established basis. The discoveries which made Galileo, and Kepler, and Mæstlin, and Maurolycus, and Castelli, and other names equally illustrious, the system of Copernicus, the very theories of recent geologers are anticipated by Da Vinci within the compass of a few pages, not perhaps in the most precise language, or in the most conclusive reasoning, but so as to strike us with something like the awe of preternatural knowledge.’

He says—‘The interpreter of the works of nature is experience. It never deceives ; it is our judgment which is sometimes at fault, because it expects results which experience rejects. It is necessary to consult experience by varying the circumstances from which we have drawn general laws : because it is that which gives true laws.’

‘There is no certainty in sciences to which mathematics cannot be applied, or which do not depend upon it in some way.’

‘In the study of the sciences which depend upon mathematics, those who do not study nature but books, are not the children of nature : they are only her grandchildren : she alone is the mother of true geniuses. But what folly ! they laugh at a man who prefers to learn from nature herself, than from writers who are only her clerks.’

‘My design is to cite experience, and to show why bodies are obliged to act in such a manner. It is the way which one must observe in researches into the phenomena of nature. It is true that nature begins from reasoning, and finishes by results : but nevertheless we must take the opposite way : as I have said we must begin by experiment, and endeavour by its means to discover the reason.’

12. The path thus opened up by Da Vinci was soon followed



by a host of writers, both theoretical and practical. Bernard Telesio, of Cosenza (1508-1588), was one of the earliest. An ardent student, he soon became satisfied that science as then taught was utterly erroneous. In 1565 he published his work at Rome, 'On the Nature of Things.' He says—'The construction of the world, the magnitude and nature of the bodies contained in it, are not to be investigated by reasoning, but are to be apprehended by the senses, and collected from the things themselves' (*Whewell*). 'We propose to ourselves to turn our eyes to the world itself, and its parts, their passions, actions, operations, and species.' The work of Telesio excited great notice, and as a testimony of its merits was placed in the *Index Expurgatorius*.

**13.** His next successor was **Tommaso Campanella** (1568—1639), who studied at Cosenza. He says that he was afraid that falsehood and not truth was the tenant of the Peripatetic School : and that he studied all the great authors to compare them with the first and original writing of the world. He says that no one but Telesio pleased him on account of his freedom in philosophy, and because he rested on the nature of things, and not upon the assertions of men. He published a work in defence of his master, against those who have philosophised in an arbitrary and dogmatical manner, not taking Nature for their guide : in which the errors of Aristotle and his followers are refuted from their own assertions : and the laws of Nature, and all the imaginations feigned in the place of Nature by the Peripatetics are altogether rejected.'

**14.** **Andrea Cesalpino** (1520-1603) was another great reformer, both theoretical and practical. He formed the first systematic arrangement of plants. He says (*Whewell*) 'We reach perfect knowledge by three steps—Induction, Division, Definition. By Induction we collect likenesses, and agreement from observation : by Division we collect unlikeness and disagreement : by Definition we learn the proper substance of each object. Induction makes universals from particulars, and offers to the mind all intelligible matter : Division discovers the difference of universals, and leads to species, and Definition re-

solves species into their principles and elements.' Thus Cesalpino clearly saw that Definition is the last result of observation, though it may be the first in teaching.

The revolt against the Aristotelian philosophy and Scholasticism was now in full progress, and we need not quote any more writers who were now joining the winning cause.

15. The progress of Inductive Science was immensely stimulated by the development of Mathematics. In 1202 a merchant of Pisa, named Leonardo, who had travelled widely in the East, brought home with him the Arabian treatises on Algebra, and they excited a certain attention, and had some followers : but no very great advance was made till the sixteenth century, when the discoveries of Cardan and Tartalea excited the warmest public interest. The scientific spirit was now thoroughly aroused. The lecture-rooms of Mathematicians were filled by the same crowds as had formerly thronged the studios of the artists : and the discovery of a new mathematical formula or a new truth in physics was received with the same delight as a new painting or a new statue in former times. In a similar spirit Anatomy made prodigious advances, and the amphitheatres of Vesalius and Fallopio shared the popularity of the lecture-rooms of the Mathematicians : and the names of Eustachio, Coiter, Columbus, Arantius, Vidius, Piccolomini, Alberti, Benivieni, Donatus, Shanck, and hosts of others rival the fame of the physical philosophers. The shock to the existing system of dogmatism was completed by the overthrow of the Astronomy of Ptolemy by Copernicus.

Thus in every department of human knowledge men resorted to Nature and not to books : and Inductive Science was not the creation of any single person, but it was the product of the European mind of the sixteenth century, and was in full progress before Bacon was born.

*Bacon proclaimed the Doctrine of the **Continuity of the Sciences***

16. But the great prophet of the Inductive Philosophy was **Francis Bacon** ; and his name is usually associated with it.

It is sometimes said that Bacon was the father of all

Physical Philosophy : that he first showed the way by which all modern sciences were created. This is to a certain extent true : but it is very far indeed from expressing the distinctive merits of the Baconian Philosophy. The Inductive spirit was not the creation of Bacon, but it was the product of the European mind of the sixteenth century. Galileo and other Physical Philosophers created Physical Sciences wholly independent of Bacon. But the distinctive merit of Bacon has never yet been sufficiently appreciated. He did not create any special physical science : and it is just possible that the Physical Sciences might have been just as far advanced at the present time, if he had never written a line. But Bacon did something far higher than creating any single science ; he **created the Science of creating Sciences**. He formed in his stupendous mind the everlasting canons of Inductive Logic, by which all alleged sciences must be tested. He created that Supreme Science which enters with imperial authority into every particular science. He pointed out the methods by which the Physical Sciences must first be created, and then he had the miraculous sagacity to perceive that the same principles of reasoning by which the Physical Sciences were to be created must be applied to the creation of the Moral and Political Sciences.

That is the matchless and undivided glory of Bacon. Before there was a single Physical Science in existence, he laid down the everlasting canons by which all Physical Sciences must be created ; and he had the miraculous sagacity to perceive that in the Natural Sciences are to be found the types and standards of reasoning which are to guide us in the creation of Moral and Political Science.

‘Meanwhile, let no one expect much progress in the sciences (especially on the practical part of them), unless Natural Philosophy be applied to each individual science, and each particular science be referred again to Natural Philosophy. Hence it is that Astronomy, Optics, Music, most of the mechanical arts, medicine itself, and—what one might more wonder at—**Moral and Political Philosophy**, logical sciences, have scarcely any depth, but only glide over the surface of a multitude of things, because after these separate sciences have been once distributed and erected, they are no longer nourished by Natural Philosophy.

Therefore it is not the least strange if sciences make no progress when they are torn from their roots.'

'And here it may be repeated what was said above, about the application of Natural Philosophy, and that each separate science must be referred to that again, that the sciences may not be severed and cut off from the trunk. For without this little progress is to be hoped for.'

'Some, too, may doubt, rather than object whether we speak of Natural Philosophy only, or that the other sciences, logic, ethics, politics, are also to be brought to perfection by the same method. *But most assuredly we mean what we said to apply to them all*: and as the common logic, which acts by syllogism, affects not only the natural, but all sciences, so also ours which proceeds by Induction, embraces them all. For we form a history and tables of discovery of anger, fear, shame, and the like, also of examples of **Politics**, so also of affections of the mind.'

'Let us now come to that knowledge to which the oracle of old leads us,—namely, the knowledge of ourselves, upon which, as it touches us the more nearly, the more diligence is to be bestowed. This knowledge is for men, the aim and the object of all knowledge, but it is only a portion of Nature. And let this be laid down as a general rule, that all divisions of sciences be so understood and applied that they may rather mark and distinguish them than separate and divide them, *so that we may always avoid a **break of Continuity** in the sciences*. For the contrary mode has made each separate science barren, empty, and erroneous, since they were not nourished, supported, and corrected by the common fountain and aliment.'

'We have laid down that this is the function of Natural Philosophy.'

Bacon, therefore, inculcated the study of Physical Science for its own sake, but not for its own sake only, but as the foundation of Moral Science. It is his transcendent merit to have been the first to perceive, and to proclaim with the voice of a trumpet, the great doctrine of the Continuity of the Sciences.

It has long ago been observed that the genius of the Platonic Philosophy is essentially Inductive. Only Plato applied the Inductive method to the ideas of the Moral World. But

the genius of the Philosophy of each is identical. The sublime discovery of Bacon was that Physical Inductive Science must **precede** Moral Inductive Science : that Natural Science is the nursing mother of all science : and that in it are to be found the types and standards of reasoning to which all other reasoning is to be referred : that it is the *παιδαγωγός* to lead us to the study of Moral Science. He proclaimed the union between **Ideas** and **Reality**, to which nothing earthly was comparable, which was the sole hope of attaining true science, and in consequence of the divorce between them, the whole fabric of human knowledge, as then existing, was like some magnificent structure without any foundation.

It is therefore an error to suppose that Bacon was the creator of the Physical Sciences. He was the creator of **Inductive Logic** : which is not the art of *discovering* truth, but the Science of **Judging** whether or not certain alleged discoveries are true. **Logic** is the **Science of Judgment** : and not an art of *Discovery*, nor even an art of *Reasoning*. The faculty of proposing Notions, or Ideas, or Laws or Reasons, belongs to the *Imagination* or the *Invention* : but all these Reasons, Laws, or Conceptions, must be submitted to the tribunal of the Reason or Logic, before they can be finally admitted to be true. And it is the province of Logic to discover and apply the tests which any conception or axiom must satisfy before it can be admitted to be true. Cicero has described, once and for ever, the true function of Logic, '*In hac arte, si modo est hæc ars nullum est preceptum quo modo verum inveniatur, sed tantum est quo modo Judicetur.*' Thus the *Novum organum* is not the science or the art of discovery, but it is the **Theory of Theorising**, or the **Theory of Generalisation** : it is the science and the art of judging and deciding whether the Conceptions and Axioms of the various sciences are true. It is, therefore, not the Science of *Discovery*, but the Science of **Verification**.

And the progress of science has exactly verified the prescience of Bacon. The Inductive spirit was the product of the European mind in the sixteenth century : and it was first applied to the creation of the Physical Sciences : and Political Economy was the product of the European mind in the eighteenth century. For Political Economy is nothing but the

attempt to apply to the phenomena of society the same spirit of exact reasoning as had been applied to the phenomena of the material world.

And this great discovery, first seen and proclaimed by Bacon, has been repeatedly enforced by the most eminent men since. Thus Newton says that an extension of our knowledge of the laws of Natural Philosophy would certainly extend our knowledge of the laws of Moral Philosophy.

*J. B. Say maintains that Political Economy is an Inductive Science*

**17.** The earliest school of Economists in modern times acknowledged the same principles. As is explained in a subsequent chapter, they maintained that there is a Natural Science on the subject.

This doctrine was proclaimed with much more earnestness and effect by J. B. Say, who, however, had read Bacon with such extraordinary carelessness as to say, 'The Chancellor Bacon, who was the first to teach that to understand the processes of Nature we must consult, not the writings of Aristotle, but Nature itself, by judicious observations and well-contrived experiments, was entirely ignorant that the same method was applicable to Moral and Political sciences, and that it would obtain the same success in them': and many other passages to the same effect.

*Mill maintains that Political Economy is an Inductive Science*

**18.** The doctrine that the same spirit of philosophising is common to Physical and Moral Science had now become one of the recognised dogmas of Philosophy. Passing over many other distinguished names we may quote Mill, who follows exactly in the same strain as the others.

He says—'The backward state of the Moral Sciences can only be remedied by applying to them the methods of Physical Science duly extended and generalised.'

Also—'In scientific investigation, as in all other works of human skill, the way of attaining the end is seen, as it were, in-

stinctively by superior minds, in some comparatively simple case, and is then, by judicious generalisation, adapted to the variety of complex cases. We learn to do a thing in different circumstances by attending to the manner in which we have spontaneously done the same thing in easy ones.

‘This truth is exemplified by the history of the various branches of knowledge which have successively, in the ascending order of their complication, assumed the character of sciences, and will doubtless receive fresh confirmation from those of which the scientific constitution is yet to come, and which are still abandoned to the uncertainties of vague and popular discussion. Although several other sciences have emerged from this state, at a comparatively recent date, none now remain in it, except those which relate to man himself, the most complex and most difficult subject of study on which the human mind can be engaged.

‘Concerning the physical nature of man as an organised being—though there is still much uncertainty and much controversy, which can only terminate by the general acknowledgment and employment of stricter rules of Induction than are commonly recognised, there is, however, a considerable body of truths which all who have attended to the subject consider to be fully established : nor is there now any radical imperfection in the method observed in this department of science by its most distinguished modern teachers. But the laws of Mind, and even in a greater degree those of Society, are so far from having attained a similar state of even partial recognition, that it is still a controversy whether they are capable of becoming subjects of science in the strict sense of the term : and among those who are agreed upon this point, there reigns the most irreconcilable diversity on almost every other. Here, therefore, if anywhere, the principles laid down in the preceding books may be expected to be useful.

‘If on matters so much the most important with which the human intellect can occupy itself a more general agreement is ever to exist among thinkers : if what has been pronounced the “proper study of mankind” is not destined to remain the only subject which philosophy cannot succeed in rescuing from empiricism—*the same processes through which the laws of many*

*simple phenomena have by general acknowledgment been placed beyond dispute must be consciously and deliberately applied to those more difficult inquiries.* If there are some subjects on which the results obtained have finally received the unanimous assent of all who have attended to the proof, and others on which mankind have not yet been equally successful : on which the most sagacious minds have occupied themselves from the earliest date, and have never succeeded in establishing any considerable body of truths so as to be beyond denial or doubt ; *it is by generalising the methods successfully followed in the former inquiries, and adapting them to the latter, that we may hope to remove this blot on the face of science.'*

And Mill has several other passages to the same effect.

Here at last we might hope that we had attained a solid foundation. The preceding extracts contain as explicit and distinct an acknowledgment, as it is possible for language to do, that in Mill's opinion the Science of Society—of which Political Economy is one branch—is to be investigated by methods exactly analogous to those which have already been adopted, and have led to such distinguished success in Physical Science : and that the only hope of raising Social Science to the rank of a Demonstrative Science is by doing so. And when Bacon, Newton, Butler, Locke, Say, Comte, Herschel, Mill, and hosts of others, are unanimous that Economics, as one of the Moral Sciences, is an Inductive Science, we might hope that the question as to the method of investigation proper to it was finally set at rest.

*Self-contradiction of Mill : he says that the 'à priori' method is the only proper one to investigate Economics*

19. What, then, is our astonishment to read—'With the consideration of the definition of a science is inseparably connected that of the philosophical method of the science : the nature of the process by which its investigations are to be carried on, its truths to be arrived at.

'Now in whatever science there are systematic differences of opinion, which is as much as to say in all the Moral or Mental Sciences, and in Political Economy among the rest ; in



whatever science there exist, among those who have attended to the subject, what are commonly called differences of principle, as distinguished from differences of matter of fact, or detail—the cause will be found to be a difference in their conceptions of the philosophic method of the sciences.’

‘In the definition we have attempted to frame of the Science of Political Economy we have characterised it as *essentially an abstract science, and its method as the method, ‘à priori’ (!)*. Such is undoubtedly its character as it has been understood and taught by all its most distinguished teachers. It reasons, and as we contend *it must necessarily reason from assumptions, and not from facts !!* It is built upon hypotheses strictly analogous to those which, under the name of definitions, are the foundation of the other abstract sciences.’

‘This ought not to be denied by the Political Economist ! If he deny it, then, and only then, he places himself in the wrong ! The *à priori* method which is laid to his charge, as if his employment of it proved his whole science to be worthless, is, as we shall presently show, *the only method by which any truth can possibly be attained in any department of the Social Science !!*’

‘But we go further than to affirm that the method, *à priori*, is a legitimate mode of philosophical investigation in the Moral Sciences—*we contend that it is the only mode*. We affirm that the method *à posteriori*, or that of specific experience, is altogether inefficacious in those sciences as a means of arriving at any considerable body of valuable truth, though it admits of being usefully applied in aid of the method *à priori*, and even forms an indispensable supplement to it !!’

We simply place these extracts before the student : and then ask him what he thinks of Mill as a logician ? It is scarcely necessary to say that we entirely repudiate the latter extracts, and agree with the former.

It was the discovery of the first Bacon that all Sciences must be brought under the dominion of Mathematics : it was the discovery of the second Bacon that the same principles of reasoning which govern the Physical Sciences equally govern the Moral Sciences.

We have now to realise these Conceptions by **Creating the Science of Economics.**

## CHAPTER II

## ON THE NATURE AND FORMATION OF A PHYSICAL SCIENCE

1. IT being then now universally agreed that Political Economy, or Economics, as a Moral Science is a Physical Science, and to be constructed after the methods adopted in other Physical Sciences, we have next to examine the nature and formation of a Physical Science, and what is meant by saying that Economics, as a Moral Science, is to be constructed in a manner analogous to other Physical Sciences.

A Physical Science, in the sense of those who maintain this doctrine, is a body of the Laws which govern the phenomena relating to some single Idea, or Quality, which must be of the most general nature.

Thus Dynamics is the science which treats of the phenomena, or facts, relating to Force : Optics is the science which treats of the phenomena of Light : Acoustics is the science which treats of the phenomena of Sound : so there are other Physical Sciences, such as those of Heat, Electricity, and so on.

All these are sciences of causes and effects : and the business of the science is to discover and express in exact language the causes which produce changes in the numerical relations of the effects. And any body of phenomena or facts whatever, based upon a single central general idea, may be erected into an exact science whenever the effects are capable of numerical measurement.

The whole certainty of the belief in the Physical Sciences rests upon this, that the Creator has endowed or impressed material substances with certain fixed, invariable, and unchangeable qualities : and that similar causes will always produce similar effects or phenomena : so that when once the Laws

which govern the phenomena are ascertained by observation and experiment, and truly expressed in accurate language, we are always able to predict the consequences or effects which will follow from definite causes.

Now, if there be, as is asserted, a Moral Philosophy composed of a number of distinct Moral Sciences, as Physical Philosophy is composed of several distinct Physical Sciences, what can it mean? And how is a Moral Science to be created on the analogy of a Physical Science?

It can only mean this—that men, like Physical substances, are endowed with various moral qualities, properties, or passions, such as Hope, Fear, Anger, **Desire**, Resentment, &c. Certain causes, acting upon these different passions or qualities, produce effects in men. Now, if these passions or qualities were as universal and invariable in men as the properties or qualities of physical substances: and also if the same causes produced the same effects uniformly and invariably as each of these qualities in men: and if, moreover, any means could be discovered of *measuring* these effects—if, in short, we could invent a **Thumometer** as well as a **Thermometer**—then each of these qualities might be made the subject of a distinct Moral Science, as certain as a Physical Science; and we should have a body of Moral Philosophy as certain as, and analogous to, Physical Philosophy.

Men, however, are not endowed with these moral qualities in the same uniform and invariable manner that Physical substances are. A person conversant with human nature may no doubt prognosticate the effects which will be produced on masses of men by certain causes: and on this knowledge is founded the power of the Statesman, the Orator, and the Poet. But it is not certain that each individual man will be amenable to these influences. It is a common observation that it is much easier to know human nature in general than any man in particular. Moreover, these effects in men are not capable of any numerical measurement. Though, therefore, it is undoubtedly true that the general principles of reasoning are the same in Moral as in Physical Science, yet from the want of uniformity in the properties or passions of men, and from the impossibility of devising a means of measuring their effects, they are not capable

of being carried to the same degree of perfection as the Physical Sciences.

Nevertheless, if there be any Moral Science founded on a quality of men which prevails and has prevailed among men of all ages, countries and varieties with the same uniformity and invariability as the qualities of Physical substances do—and more especially *if its effects can be measured numerically*—such a Moral Science may be erected into a Science closely approximating to the precision and the certainty of a Physical Science; and a Moral Inductive Science may be created by observing the phenomena relating to that quality, and by following the same course of generalising the Laws which govern those phenomena in all respects analogous to a great Physical Science.

*On the Formation of **General Conceptions and General Axioms***

2. The nature of a science being thus determined, the next point is to construct it, or to discover the Laws which govern its phenomena or facts : or, in other words, to be able to explain the phenomena.

Every science consists of two parts :—

1. The **General Conceptions or Definitions**, or a due classification of the Quantities it treats about.

2. The **Laws** which govern their relations, called by Bacon, Newton, Herschel, Whewell, and many others, **Axioms**, or **General Principles**.

Bacon says that there is a great and almost radical distinction between minds in regard to Philosophy and Science : that some are more apt to perceive the differences of things, and others the resemblances. This distinction, though often insisted upon as fundamental, will appear to be less radical if we consider that to do each accurately depends upon the same general power of the mind, namely, that of separating complex terms into their elementary ideas : and perceiving which are the essential or fundamental ideas, and which are the subordinate or accidental ones. When the leading ideas of Quantities are identical they must be classed together, even though some of the subordinate ones are different. On the other hand, when the leading properties are opposed, there is a fundamental

distinction between the Quantities, even though some of the subordinate ones are similar. Thus the same general analytical power of the mind enables us to perceive latent similarities, and also to annihilate spurious identities. Now all true classification, which is as much as to say all true science, is based upon perceiving fundamental analogies beneath superficial differences, and fundamental distinctions beneath superficial resemblances.

Moreover, the formation of Definitions or Fundamental Conceptions is not arbitrary, or dependent on the will of the writer. Their formation as well as that of Axioms is strictly subject to certain general philosophical laws.

Two canons are of fundamental importance in the formation of Definitions and Axioms—

1. *The Fundamental Conceptions and Axioms of every science must be perfectly General.*

2. *No General Conception and no General Axiom must contain any term involving more than one Fundamental Idea.*

The truth of this latter canon is manifest : because if any term involves more than *one* fundamental idea, it limits the generality of the Conception or Axiom, which is contrary to the first canon.

Consequently if we wish to bring Economics to the state of an exact science, we must carefully examine all its Fundamental Conceptions and Axioms, and reduce them to the state of generality and simplicity required by the above canons.

Hence, if we meet with Conceptions and Axioms which violate these canons by containing *several* distinct ideas, we must apply the general principles of Inductive Logic to discover which is the true general idea, and eliminate all other accidental, particular and intrusive ideas.

3. Socrates, Plato, Aristotle, Bacon, Hobbes, Locke, and every philosopher of note have repeated the same thing. The chief charge alleged by Bacon against the Logic of the schools was that it was wholly unable to penetrate the recesses of nature. He says :—‘The syllogism consists of propositions, propositions of words, and words are the signs and tokens of conceptions. So that if the very conceptions of the mind

(which are as it were the soul of words and the foundation of the superstructure and edifice) are badly and inconsiderately formed from the facts, vague, nor sufficiently definite and limited, faulty, in short, in every way, it ruins everything.'

Over and over again he repeats that the formation of Conceptions, or Definitions, and Axioms, or General Laws, by true induction is the only way of expelling fallacies. So, in affirming that the Conceptions and Axioms of his own day were utterly worthless, he says :—'The discoveries already made in the sciences are of such a sort as scarcely to be below the surface of the vulgar notions : but in order to penetrate to the deep recesses of nature, both Conceptions and Axioms must be derived from facts by a more certain and guarded method.'

Again—'The formation of Conceptions and Axioms by a true induction is assuredly the true remedy to drive away and expel fallacies. And of these fallacies, the fallacies of language (*Idola fori*), which men gain from one another by common discourse, are the most troublesome of all. For the ill and unfit choice of words wonderfully obstructs the understanding. For words plainly exert a power over the understanding, and throw everything into confusion, and lead men away into numberless empty controversies and phantasies : for men believe that their understanding controls their language : but it is also true that language reacts and turns back its power over the understanding, which is the very thing which has rendered philosophy and the sciences sophistical and inactive. But words are commonly framed by the capacity of the vulgar, and divide things according to the lines which are most obvious to the minds of the vulgar. And whenever a clearer intellect and a more careful observation wishes to shift these lines to a truer agreement to nature, words cry out against it. Thus it happens that great and important discussions of learned men often turn upon controversies about words and names, with which, according to the wise custom of mathematicians, it would be more prudent to begin and so bring them into order by definitions.'

Again—'The formation of Ideas and true Conceptions and Axioms by true induction is, no doubt, the proper remedy to be applied for the keeping off and clearing away fallacies'—'And the assistance of this induction is to be used, not only in

discovering General Laws, but also in the formation of Conceptions, and assuredly in this induction the chief hope lies.'

Bacon then places the foundation of all science in the extirpation of fallacies (*Idola*) and the obtaining true General Conceptions (*Ideæ*) from nature and reality by genuine induction, which are not to be the fanciful fictions of the mind. He maintains that Conceptions are to be obtained from facts in the same manner as Axioms or General Laws. He has not given any examples of his method : nor indeed was it possible that he should do so. No Logic can show how it can be done. It is the part of Imagination or Invention to devise and suggest Fundamental Conceptions, and of Logic to determine whether they are true or not.

The Baconian method of induction has been far more generally applied to General Laws than to Conceptions. From which circumstance some have drawn the conclusion that his method is practically useless. This however is a most grievous error : as the Baconian or Inductive Logic may be applied with decisive effect to determine the controversies which prevail up to the present hour as to every single General Conception in Economics.

4. There is a fundamental principle relating to Physical Science which is of the greatest importance in Economics. The special Idea or Quality which is the central one of the science may appear in substances of the most unlike natures, and which agree in no other respect than in possessing that Quality. But all these substances or natures, however unlike or dissimilar they may be in other respects, so long as they agree in possessing that single Quality on which the science is based must be reckoned as elements or constituents in that science.

Thus Bacon says—'Whoever is acquainted with forms embraces the unity of nature in substances the most unlike. . . . A nature being given, we must first of all have a muster or presentation before the understanding of all known instances which agree in the same nature.'

Thus the science of Arithmetic or Algebra is the science of number or measure : and consequently whatever can be numbered or measured is an Arithmetical or Algebraical Quantity

whatever its nature may be. Thus Quantities of the most diverse natures are brought under the dominion of Arithmetic and Algebra simply from their capability of being measured.

Thus Time, Space, material substances of all sorts, Velocity, &c., and which have no other property in common but the capability of being measured, are all Arithmetical or Algebraical Quantities.

So Dynamics is the science which treats of the phenomena of Force : and a Force is defined to be—

**Anything** *which causes or tends to cause motion or change of motion in a body.*

This word **Anything** is of a very wide and general nature, and includes Quantities which agree in no other respect than in possessing the Quality of Force.

Thus some forces are material, like men and animals.

Other forces are incorporeal, invisible, and intangible, like gravity, electricity, and magnetism, if indeed these are not merely different manifestations of the same force.

Other forces are explosive, like gunpowder, dynamite, &c.

There is also the force of the wind, steam, and many others.

Some forces act perpetually and universally, like gravity : other forces for a limited time : other forces produce their effects in a single instant : hence Permanence or Duration is not necessary to Force.

But all these are Forces, and enter into the science of Dynamics, because they all satisfy the dynamical definition of Force: they all possess the common Quality of changing the rest or motion of bodies : and yet they have no other Quality in common than the single one of Force. What can be more different than man and gravitation? What can be more different from these than gunpowder or dynamite? And yet again steam and the wind are different from all the others. But all these distinct kinds of things are included under the common name of Force.

5. If then Political Economy, or Economics, is declared to be a Moral Inductive Science which is to be constructed and erected into a science in the same manner as a Physical Science—what can this mean? And how is it to be done?



It is perfectly well agreed now among Economists that Economics is the science which treats of things so far as they are **Wealth**. It is the science which treats of the Laws which govern the phenomena of **Wealth**.

Now without inquiring yet what **Wealth** is : and what that Quality of things is which constitutes them **Wealth**, we may lay down this preliminary consideration, which must govern the course of the inquiry and the method of constructing the science.

The **Quality** which constitutes things **Wealth** must be some single Quality of the most general nature : and the *Science of Wealth* must be the *Science of the phenomena relating to that single Quality*.

Following the analogy of Physical Science, we may lay this down, that whatever **Quality** that may be which constitutes a thing **Wealth**, in whatever thing that Quality may be found to exist, it must be technically included under the term **Wealth**, whatever its nature may be, and whatever other qualities it may possess.

Arguing from the strictest analogy of Physical Science, we may say that whatever satisfies the Economic definition of **Wealth**, or an Economic Quantity, is **Wealth**, whatever other Qualities it may possess. And the Science of Economics treats exclusively of the phenomena relating to that Quality : and takes no notice whatever of any other Qualities the Quantity may possess, or of the phenomena relating to them. Just as we may consider man purely as a mechanical force, without reference to any other qualities he may possess, moral or physical.

6. Having, then, searched for and ascertained what that **Quality** of things is which constitutes them **Wealth**, the next thing to be done is to search for and ascertain how many distinct kinds or orders of Quantities there are which possess that Quality, or which satisfy the definition of **Wealth**.

Now, arguing from the general analogy of Physical Science, and without at present anticipating any controversies which may prevail on the subject, we may say that we may naturally expect to find Quantities of several diverse and distinct kinds and

natures, which will satisfy the Economical Definition of Wealth, and are consequently Economic Quantities.

It is also clear that we must take care to search for and discover *all* the distinct kinds of Quantities which satisfy the Economic definition of Wealth, before we begin to construct the science : because if we omit any, those Conceptions and Axioms or Principles which may be founded on considering only certain of the species will probably be found to be erroneous, and not true as General Conceptions and Axioms, and they will vitiate the results obtained.

It is infinitely better to begin by ascertaining that we have included *all* species in our Conceptions and Axioms, than afterwards to have to pull down, widen, and enlarge and reconstruct our system from careless omissions in the first instance.

#### *On the Formation of Axioms or General Laws*

7. Having, then, obtained General Conceptions or Definitions of the Quantities with which the Science deals, the next thing is to discover the General Law which governs their relations to each other.

And in searching for this it must be observed that there can be but *one* General Theory, or Law, at the basis of all phenomena. There may, it is true, in particular cases, be other circumstances which may aggravate, neutralise, or overpower and reverse the effect of the General Law : but, for all that, it is there and acts universally.

In several of the great sciences different General Theories have prevailed at different times, such as in Astronomy, Optics, Heat, Electricity, &c. But no Physical philosopher ever dreamt of explaining every distinct class of cases in any science by a distinct fundamental Theory.

No one ever thought of writing a treatise on Astronomy, in which one chapter was based on the Ptolemaic Theory : another chapter on the Copernican Theory : another on that of Tycho Brahe : no one ever thought of writing a treatise on Optics, one chapter of which was based on the Emission Theory of Light, and another on the Wave Theory : and so on in Heat and Electricity. No one ever dreamt of maintaining that there is a

distinct Theory of Light for every distinct class of optical phenomena.

It has always been understood that there can be but **One** General Theory which governs all phenomena : though liable to be modified by disturbing causes in particular cases. And the business of the Physical Philosopher has always been to discover which is the true General Theory : and the grand business of the Baconian or Inductive Logic has been to discover and lay down the principles which are to decide which is *the* true Theory. In politics no doubt we require the spirit of compromise, and many contradictions are tolerated for the sake of peace. But in Science toleration and compromise are impossible. It is always a mortal combat between rival Theories. All but one must perish : and it is the business of Inductive Logic to pronounce the doom of life or death.

Without then even yet determining what Economics is, we may lay this down that if it is a Physical Science, as is so often asserted, there can be but **one** General Theory of the relations between Economic Quantities. To break up Economic phenomena into distinct classes of cases, and to maintain that there is a distinct fundamental Theory or Axiom or Law governing each class of cases, would be utterly repugnant to the fundamental principles of Natural Philosophy.

§. One of the great fundamental Laws of Inductive Logic pervading every part of the *Novum Organum* and expressing its very spirit is called the *Law of Continuity*, and is thus described by Whewell—

*'A Quantity cannot pass from one amount to another by any change of conditions without passing through all the intermediate magnitudes according to the intermediate conditions.'*

'This Law may often be employed to correct inaccurate deductions and reject distinctions which have no real foundation in nature. For example, the Aristotelians made a distinction between motions according to nature (as that of a body falling vertically downwards) and motions contrary to nature (as that of a body moving along a horizontal plane) : the former they held became naturally quicker and quicker : the latter naturally slower and slower. But to this it might be replied that a

horizontal line may pass by gradual motion through various inclined positions to a vertical position, and thus the retarded motion may pass into the accelerated : and hence there must be some inclined plane on which motion is naturally uniform : which is false : and therefore the distinction of such kinds of motion is unfounded.'

That is to say, there is no point whatever at which one kind of motion passes into another.

Again, 'The evidence of the Law of Continuity resides in the universality of those Ideas which enter into our apprehension of Laws of Nature. When of two Quantities one depends upon the other, the Law of Continuity necessarily governs this dependence. Every philosopher has the power of applying this Law in proportion as he has the faculty of apprehending the Idea which he employs, with the same clearness and steadiness which belong to the fundamental Idea of Quantity, Space, and Number. To those who possess this faculty the Law is a rule of very wide and decisive application. Its use, as has appeared in the above examples, is seen rather in the disproof of erroneous views, and in the correction of false propositions, than in the invention of new truths. It is a test of truth rather than an instrument of discovery'—which, we may observe, is the true function of all Logic, both Aristotelian and Baconian—formal and inductive.

The *Law of Continuity* is one of the most powerful weapons of Inductive Logic, and is of very wide application in Physical research. It has been applied with immense effect in settling the fundamental conceptions of Mechanics, Electricity, Geology, and indeed of every other science : its capability of being applied to settle the Fundamental Conceptions and Axioms of Economics has never yet, that we are aware of, even been suspected ! And yet we shall find that it is capable of absolutely deciding and determining once and for ever the greater part of the controversies in Economics.

The great Philosophers who created the Physical Sciences instinctively obeyed the Laws of the Baconian or Inductive Logic. In fact, this Logic must have been necessarily evolved in the process of the formation of these sciences. Because in all controversies it is necessarily assumed that there is some

supreme power which is admitted to be capable of deciding authoritatively all scientific controversies, which must be yielded to by both parties, or else there is no prospect or possibility of bringing the controversies to a final end. And that supreme power is the **Reason** : the Divine ΛΟΓΟΣ, or Logic, as Cicero says, the common property of God and Man.

The wonderful sagacity of Bacon was that he anticipated this natural process, and first created that Science of Sciences which rules over every particular science with supreme power. All controversies in Economics, both as to Conceptions and Axioms, must be brought to the tribunal of this supreme power, and must be decided by exactly the same principles of Inductive Logic as have already finally decided the controversies in Physical Science : and then we shall have an example of a great Moral Science, both Inductive and Deductive, framed after the strictest model of a Physical Science on rigorous Baconian principles.

## CHAPTER III

ON THE MEANING OF THE WORD WEALTH IN ANCIENT  
TIMES

1. IT being then agreed that Economics is the Science which treats of things so far as they are Wealth, we have next to determine what that single General Quality is which constitutes them **Wealth**.

Now, Aristotle says—

*χρήματα δὲ λέγομεν πάντα ὅσων ἡ ἀξία νομίσματι μετρεῖται.*

*And we call **Wealth** all things whose Value is measured in Money.*

Thus Aristotle makes **Exchangeability**, or the *capability of being bought and sold*, to be the sole essence and principle of **Wealth**. Consequently everything whatever which can be bought and sold is Wealth, whatever its nature may be.

Now, here we have a perfectly good General Conception, which exactly satisfies the canon laid down in the preceding chapter, as it contains only *one* General Idea : and it is therefore fitted to form the basis of a great Science. It is a Conception as wide and general as the dynamical definition of Force. This single sentence is in fact the germ out of which the whole Science of Economics is to be evolved, just as the huge oak tree is developed out of the tiny acorn.

*On the Number of distinct kinds of Quantities which can be bought and sold*

2. Having then determined that the single general Quality which constitutes things Wealth is *Exchangeability*, or the *capability of being bought and sold*, we have next to discover and ascertain how many distinct Orders of Quantities there are

which satisfy Aristotle's definition : or which can be bought and sold : or whose *Value can be measured in Money*.

In the first place, there are Material things of a multitude of different kinds, such as lands, houses, cattle, corn, timber, money, jewels, furniture, manufactures of all sorts, &c., which can all be bought and sold : or whose value can be measured in money : and which everyone now admits to be Wealth : and therefore we need not dwell upon them any longer.

There are, however, other kinds of Quantities whose Value can be measured in money which we have now to consider.

*The Dialogue called the 'Eryxias' to show that **Labour is Wealth***

3. There is a very remarkable dialogue extant, which is the earliest regular treatise that we are aware of, on an Economical question. It is called the 'Eryxias,' or 'On Wealth,' and is frequently bound up with the dialogues of Plato, and is attributed to Æschines Socraticus, one of the most distinguished disciples of Socrates. Critics, however, unanimously pronounce it to be spurious, without being able to attribute it to any definite author. High authorities consider that it was probably written about the early Peripatetic period.

This dialogue is to the following effect :—The Syracusans had sent an embassy to the Athenians, and the Athenians had sent a return embassy to the Syracusans. As the ambassadors returned from Sicily they met Socrates and a party of his friends, with whom they entered into conversation. Eryxias, one of the envoys, said that he had seen the richest man in Sicily. Socrates immediately asked Eryxias what he meant by **Wealth**. Eryxias replied that he thought on the subject as everyone else did : and that to be Wealthy meant to have much Money. Socrates then asked him what kind of Money he meant : and he described the Moneys of various countries ; of Carthage, Laconia, Æthiopia, which if anyone possessed at either of these places he would be considered Wealthy : but which were of no use, and were not Wealth, anywhere else. He showed that houses were of no Value in Scythia because there was no use and no **Demand** for them there : but the Scythians

greatly preferred a good sheep-skin cloak. He showed that, if anyone could live without meat and drink, he would not want them, and they would not be Wealth to him. That everything, in short, is Wealth where it is *wanted* and **Demanded** : and that it is *not* Wealth where it is not wanted and demanded. He showed that gold and silver are Wealth only so far as they can obtain for us the things we want : and that if we can use anything else to obtain for us what we want, as well as gold and silver, such things are Wealth, for the very same reason that gold and silver are Wealth.

He instanced professors and persons who gained their living by giving instruction in music, reading, and other sciences : and then he said that these **Sciences** are **Wealth**—*αἱ ἐπιστήμαι χρήματα οὔσαι*—just for the very same reason that gold and silver are Wealth : and that those who are masters of such sciences are so much the richer—*πλουσιώτεροί εἰσι*.

When Socrates in this dialogue speaks of the sciences as Wealth, that, of course, is a general term for **Labour** : for Labour in Economics is any exertion of human abilities or **Thought** which is wanted, **Demanded**, and paid for. Socrates in this dialogue shows that the **Mind** has Wants and Desires as well as the Body : and that the Things which are wanted and demanded for the Mind, and are paid for, are equally Wealth as those things which satisfy the wants of the Body and are therefore **Demanded** and paid for.

Hence each of the great Sciences and Professions is a great Estate, which produces utilities which are wanted, demanded, and paid for, as much as any material products ; and are consequently Wealth just as much as any material products, because their *Value is measured in Money*, as precisely as that of any material product.

Hence it is seen that a person gaining an income by the exercise of any profession or any species of Labour is an Economic Quantity analogous to the land. He produces a series of products which are wanted, demanded, and paid for : and hence the *Value of these products is precisely measured in Money*. Consequently, though the products of the earth are material, tangible, and visible, and the products of the Mind are immaterial, invisible, and intangible, they are each of them



**Wealth** by the generality of the definition, because they have the common property of **Exchangeability**, which we have already seen is the sole essence and principle of **Wealth**.

*There is no such thing as **Absolute Wealth***

4. This dialogue also clearly enforces a doctrine which has been too much overlooked by many writers in modern times ; namely, that there is no such thing as **Absolute Wealth**, i.e. which is wealth by its own nature. That whether a thing is **Wealth** or not depends entirely upon human wants and desires ; i.e. on **Demand**. Exchangeability being the sole essence of **Wealth**, a thing is not Exchangeable when there is no **Demand** for it : hence the same thing may be **Wealth** at some times and in some places : and not at other times and in other places : Socrates showed by the instances of the different moneys of different countries. Nothing, therefore, is **Absolute Wealth**. Anything whatever, whether it is a material product, or a Labour or Service, is **Wealth** only where and when it is demanded and paid for : it is not **Wealth** where and when there is no want, desire, and **Demand** for it, and nobody will give anything in exchange for it.

We have thus already found *two* distinct orders or kinds of Quantities, *whose Value can be measured in Money*, and which therefore by the fundamental Laws of Natural Philosophy must be classed under the term **Wealth**.

*Doctrine of Roman and Greek Law that **Rights are Wealth***

5. But there is yet another Order of Quantities which are **Exchangeable** : which can be bought and sold : or *whose Value can be measured in Money*.

Suppose that a person has the Right to demand a sum of money from another person at a certain date : he can sell that **Right of Action** to anyone else for Money : and this Right of Action can be sold and transferred any number of times, exactly like a piece of money, until it is paid off and extinguished : and then it ceases to exist.

So, if any person had 100,000*l.* in Bank of England notes : or if he had a million of money, as it is usually called, in the

Funds : or in shares of the London and Westminster Bank : or in the London and North-Western Railway : he would be considered **Wealthy**. All these things can be bought and sold : and their *Value is measured in Money* : therefore they satisfy Aristotle's definition of Wealth : and consequently they are a form of Wealth. They are, however, of a distinct nature from the other two orders of Economic Quantities. They are mere abstract **Rights** : quite separate from any material things.

There are besides many other kinds of abstract Rights which may be bought and sold, which we shall enumerate more fully in a future chapter, as our only object at present is to describe a class of Exchangeable Quantities.

Now it is laid down in the Pandects of Justinian, as a fundamental definition in Roman Law—

'**Pecuniæ** nomine non solum numerata Pecunia, sed omnes res tam soli quam mobiles et tam corpora quam **Jura** continentur.'

*'Under the term **Wealth**, not only ready money, but all things, both immovable and movable, both corporeal things as well as **Rights**, are included.'*

So Ulpian says :—'Nomina eorum qui sub conditione vel in diem debent, et emere et vendere solemus. Ea enim Res est quæ emi et venire potest.'

*'We are accustomed to buy and sell **Debts**, payable at a certain event, and on a certain day. For that is **Wealth** which can be bought and sold.'*

So it is also said—'Æque **Bonis** adnumerabitur etiam si quid est in Actionibus.'

*'Also **Rights of Action** are included under the term **Goods**.'*

Also—'**Res** appellatione et **Causæ** et **Jura** continentur.'

*'Under the term **Property** both **Rights of Action** and **Rights** are included.'*

Thus it is seen that a mere Right of Action, which is what is called a Credit or a Debt, in Law, Commerce, and Economics, as will be shown more fully in a future chapter, as well as other Rights, are expressly included under the terms **Pecunia**, **Res**, **Bona**, and also **Merx** in Roman Law.

6. For nearly 500 years after Constantine removed the seat

of Government to Constantinople, the language of the Court was Latin, but the people were Greek : consequently, though Latin was the official language, it was unintelligible to the mass of the people. The great Code of Roman Law, termed the Pandects, was published in Latin in 530 A.D., but all the pleadings in the Courts were carried on in Greek. The Latin Pandects very soon fell into desuetude : they were superseded by Greek treatises, translations, and compilations. The Latin Institutes of Justinian did not hold their ground in the curriculum of legal education for more than ten years. They were superseded by the paraphrase of Theophilus, one of the Professors of Law who were charged with the compilation of the Institutes, and this paraphrase became the legal text-book throughout the Eastern Empire.

At last, in the ninth and tenth centuries, under the Basilian Dynasty, all the Pandects, Institutes, and legislation of Justinian were set aside as obsolete. A new Code or Digest was published in Greek, called the **Basilica**, which thenceforth became the Law of the Eastern Empire, and has remained to the present time as the Common Law of all the Greek population in the East : and is the Common Law of the modern kingdom of Greece.

And in the Basilica the Roman definition of Wealth is retained—

‘ τῷ ὀνόματι τῶν Χρημάτων οὐ μόνον τὰ χρήματα, ἀλλὰ πάντα τὰ κινητὰ καὶ ἀκίνητὰ, καὶ τὰ σωματικὰ καὶ τὰ Δίκαια δηλοῦνται.’

Under the term *Χρήματα* or **Wealth, Rights** are included.

And also—‘ τῇ τοῦ Πράγματος προσηγορίᾳ καὶ Αἰτίας καὶ Δίκαια περιέχεται.’

Under the term *Πράγματα*, **Chattels**, both **Rights of Action** and **Rights** are included.

In Greek Law these Rights are also included under the terms *ἀγαθα, περιουσία, ἀφορμή*.

Thus, by express enactment in Greek Law, the words *χρῆμα* and *πρᾶγμα* include Rights of all descriptions : and these words include all the three orders of Exchangeable Quantities, Material Products, Labour, and Rights.

Hence it is seen that ancient writers unanimously held that Exchangeability, or the capability of being bought and sold, is

the sole essence and principle of Wealth: and consequently that, whatever can be exchanged, or bought and sold, is **Wealth**, whatever its nature may be. They also showed that there are three distinct orders of Quantities which can be bought and sold (1) Material things: (2) Labour or Services: (3) Rights of various kinds.

And reflection will show that there is nothing which can be bought and sold which is not of one of these three forms: either it is a material product: or it is some kind of Labour or Service: or it is an abstract Right. Hence there are three, and only three, distinct orders of Exchangeable Quantities: and all Commerce in its widest extent, and in all its varieties, consists in the exchanges of these three orders of Quantities.

And as these *three* orders of Quantities can be combined two and two in **Six** different ways, it follows that Commerce in its widest extent consists of **Six** distinct kinds of Exchange.

And as we have found that the Quality of things which constitutes them Wealth is Exchangeability, it necessarily follows that the Science of **Wealth**, or the Science of **Economics**, is the Science of **Exchanges** or of **Commerce** in its widest extent.

7. It is thus seen that ancient writers possessed the true scientific instinct: they unanimously fixed upon a single general Quality—namely Exchangeability, or the capability of being bought and sold—as the sole essence and principle of Wealth. They also searched out and classed all the distinct orders of Quantities which possessed that Quality, and included them under the terms *Pecunia, Res, Bona, Merx, Χρήματα, Πράγματα, Ἀγαθά, Ἀφορμή*. They showed that there are three distinct orders of Quantities which possess this Quality: and there are no more: and these three orders of Quantities can be combined two and two in Six different ways. Hence, if we were not impeded by other considerations, we might at once proceed to the exposition of the scientific principles and mechanism of Commerce.

*The Science of Economics or Commerce is a Physical Science*

8. Anyone with the slightest mathematical feeling can at once perceive that we have here the materials of a great mathematical science. We have a distinct order of Variable Quantities: and it is perfectly clear that the same general principles of reasoning must govern the relations of this order of Variable Quantities as govern the relations of all other orders of Variable Quantities. We have here a distinct body of phenomena, or facts, all based upon a single general Quality susceptible of the strictest mathematical treatment, which we shall designate as the great Science of **Analytical Economics**.

9. Economics, then, or the Science of Commerce, is the Science which treats of the Laws which govern the relations of Exchangeable Quantities: and as it is acknowledged that it must be constructed on the analogy of other Physical Sciences, we can lay it down as a fundamental condition that there can be only a single General Theory of the relations of Exchangeable Quantities, whatever may be their form.

Assuming this to be the case; let A and B be any two Quantities whatever, supposed perfectly general, then it is clear that their exchangeable relations are contained in the following limits—

$$\begin{aligned} \infty A &= 0B \\ \&c. &= \&c. \\ 2A &= \frac{1}{2}B \\ A &= B \\ \frac{1}{2}A &= 2B \\ \&c. &= \&c. \\ 0A &= \infty B. \end{aligned}$$

That is where the exchangeable relation between A and B gradually and continuously changes from where the greatest possible quantity of A will exchange for the least possible quantity of B to where the least possible quantity of A will exchange for the greatest possible quantity of B.

Then we may affirm, by virtue of the Law of Continuity, and the universal principles of Natural Philosophy—

1. That if it can be indubitably proved that any particular Law holds good at **any** one point in the range of Prices, that same Law must necessarily hold good at **all** points throughout the whole range of Prices.

2. That as the symbols *A* and *B* are perfectly general, if any Law whatever can be proved to hold good in the variations of the exchangeable relations of **any** two Quantities whatever, that same Law must necessarily hold good in the exchangeable relation of **all** Quantities whatever.

Thus by the *Law of Continuity* we are enabled to affirm :—

1. That if any Law whatever can be proved to be true at any one point in the range of Prices between any two Quantities whatever, that same Law must necessarily be true at **all** points in the range of Prices, and between **all** Quantities whatever.

2. That if any Law can be proved **not** to be true with regard to the relations of any two Quantities whatever, that Law cannot be a General Law of Economics.

Thus we affirm by the principle of the Continuity of Science, and arguing from the analogy of every other Physical Science, that, however varied and complicated the phenomena of Value may appear to be, there can by no possibility be more than one grand general Theory of Value, whatever it may be.

No one who understands the principles of philosophical reasoning which are universally allowed to be conclusive in other sciences so earnestly insisted upon by Bacon, can fail to see that these considerations are true. If it be possible to obtain a general philosophical rule, it must be applicable to **all** cases. It is the very test of the truth of rival theories to explain particular cases. There is no other way of testing their truth: and accordingly when two apparently plausible theories have been brought to the trial, and one of them has failed to account for phenomena, it has invariably been rejected. A true theory therefore must account for all the phenomena of a science. It must be true in all classes of cases, and to any extent. A single case which can be shown to be absolutely irreconcilable with a theory is fatal to it.

In many other sciences it has happened that theories have appeared to account for a considerable number of phenomena, and have for a long time been accepted as true, but in course of

time other classes of phenomena were observed, which were wholly irreconcilable with the received theory. It consequently became necessary to devise new theories capable of comprehending the new classes of facts. Of course it is manifestly necessary that the new theory should absorb all the facts accounted for by the old one, and explain them equally well. When this has happened, and when it has been proved that the new theory accounts for all the observed facts, both the old and the new, the old theory has been invariably superseded, and the new one adopted.

Precisely the same process of reasoning holds good in Economics. Just as it is a universally acknowledged principle in experimental science, that that Law only is the true one which explains *all* the phenomena, it may be laid down as an unquestionable truth in Economics—

*That if two or more Forms of Expression will explain or account for any phenomena regarding Price, or the change of Price, that Form of Expression only is to be adopted as the true one, which explains all the phenomena, and not the particular case only.*

It will be found that these principles, which are simply the universally recognised principles of Natural Philosophy, will be of great service in deciding certain controversies which we shall hereafter find to prevail in Economics.

## CHAPTER IV

## ON THE RISE OF ECONOMICAL IDEAS IN MODERN TIMES

1. THE Science of Economics, like Medicine, has arisen out of the calamities and the misery of men, caused by the violation of true Economic principles ; and every advance in Economic Theory has originated in some great practical evil.

Charlemagne, about the end of the eighth century, founded that system of Coinage which was adopted in all the countries of Western Europe. The coinage of the Romans having fallen into great disorder, Charlemagne adopted the French pound as the unit, and coined it into 240 *deniers*, or pennies, 12 of which were called a *solidus*, or shilling, in account. For a considerable period the French sovereigns endeavoured to maintain the standard, but every petty count and proprietor claimed the right of coining on his own account. Louis VI. seems to have been the first to have issued a very debased coinage, and this was done repeatedly afterwards : and the French kings claimed the right of changing the rating of the coins as often as they pleased : so that whenever they had debts to pay they cried the coin up : when they had debts to receive they cried the coin down.

Philip le Bel was especially notorious for these evil practices, and was singled out by Dante as a false coiner—

Li si vedrà lo duol che sopra Senna  
Induce, falseggiando la moneta.

There shall be seen the woe that he shall pour  
Along the Seine, by uttering coin debased.

And these bad practices spread throughout every country in Europe, and were called *morbus numericus*. They became worse than ever under the disastrous reign of John. Between 1351



and 1360 the rating of the livre or pound was altered 71 times. The State was in the lowest state of depression when Charles V. succeeded to the crown. He reformed the entire administration, and one of his councillors, Nicolas Oresme, addressed to him a *Treatise on the Coinage*, which may be said justly to stand at the head of modern Economical literature. This contains a masterly account of the true functions of Money, and condemns in the most energetic language all changes in the weight and rating and the debasement of the coinage.

After his reign, however, these evil practices were resumed, and continued to flourish in all countries in Europe: they were carried to less extremes in England than in any other country. An excellent treatise, drawn up by Copernicus in 1526, at the request of Sigismund I., King of Poland, explaining the true principles of money, has recently been discovered, and printed in the new edition of his works. The doctrines of Oresme and Copernicus have been repeated by numerous writers since, so that it may be said that the Theory of the Coinage was the first great branch of Economics which was firmly established in modern times.

#### *On the Mercantile System, or the Balance of Trade*

2. Up till the beginning of the sixteenth century there had been many capricious and contradictory laws in all countries regarding the importation and exportation of products, sometimes prohibiting their entrance, sometimes letting them go free: but there had been no definite theory or fixed principles suggested upon which legislation should be founded with a determined object. About that period, however, certain ideas began to prevail about public Wealth, and legislation was framed to effect certain national objects by certain definite means. Thus distinct systems were established which, after undergoing several mutations and revolutions of opinion, have finally terminated in the modern science of Economics. We must now give a succinct sketch of these changes of opinion and revolutions in national policy.

3. Sovereigns saw that their chief power consisted in the treasure they could accumulate. It thus became a cardinal

point in their policy to encourage the importation of money as much as possible, and to prohibit its exportation. From about the beginning of the fourteenth century the laws of nearly every country in Europe endeavoured to prevent the export of money. Statesmen and merchants were all infected with this delusion, which was greatly fostered by the discovery of the New World. The Spaniards, dazzled with the brilliant prospect of securing the greatest part of the wealth of the world without labour, imagined that the well-being of the country consisted in amassing enormous heaps of gold and silver. But they wholly mistook the means for the end : not discerning that the precious metals are only precious so long as they are used for setting industry in motion ; while they encourage the tilling of land, the mother of increase ; or the building of ships to promote the commerce of nations ; or the plying the loom to produce clothing for mankind.

It would be beyond the scope of this work to dwell upon their well-known policy and its fatal results. While the precious metals poured into the country in boundless profusion, which the statesmen of that day thought would make them the rulers of this world, it began immediately to decline. Its industry was paralysed, and the most sanguinary penalties were unable to prevent their much-coveted treasures flying from the country ; till at last it was reduced to the lowest depth of poverty, weakness, dishonesty, and contempt. Next to Poland, Spain became the weakest and poorest country in Europe. Scarcely ever has the world seen a country blessed with so many resources by nature so suddenly descend from so lofty an eminence to such a pitch of degradation ; and it was emphatically wicked and unjust laws regarding religion, and erroneous ideas regarding the value of gold and silver, that did it all. Spain fairly earned the eminence she attained to by her industry and energy, and nothing can be more instructive to show how a great state may be ruined by evil legislation on such subjects, than a plain and simple history of the terrible catastrophe of Spanish grandeur. The legislation of this country was for a considerable period tainted with similar errors, though in a milder form, and they produced consequences the same in kind, but less in degree, owing to the innate energy and indomitable industry of

the people, who at last discovered their mischief, and burst their fetters.

*The Doctrine of the Balance of Trade*

4. The doctrine of the Balance of Trade exercised such a powerful influence over legislation and national fortunes for two centuries, and as its overthrow, together with the catastrophe of Law's system of Paper Money or the Mississippi scheme, as well as the misery of France after the war of Louis XIV., were the causes out of which the science of Political Economy, or Economics, originated in modern times, we must explain the phrase.

Gold and Silver, being held to be the only Wealth, were rigidly forbidden to be exported. But in course of time it became evident to merchants that as the precious metals were not produced in England, the only way they could be obtained was by foreign trade. But commodities being estimated as nothing, the doctrine gradually grew up that *what one side gained the other must lose*. And it became an accepted doctrine by all writers and statesmen that that commerce only was advantageous which brought money into the country. And they estimated the gain or the loss in this way. They said that if the exports of a country exceeded the imports in value, the balance must be paid in money; and that if the imports exceeded the exports in value, the balance must be paid in money. The difference in value between the exports and the imports was called the **Balance of Trade**, which it was assumed must be paid in money; and the trade of a country was considered favourable or adverse, according as the Balance was for or against it. That is to say, the Profit was held to consist in the excess of the Value of the exports above the value of the imports; and the Loss was held to consist in the excess of the value of the imports above the value of the exports.

To test the truth of this doctrine we will take the example of the rudest species of trading, which will illustrate the point as well as the most elaborate.

When our ships first traded to the South Sea Islands they took with them axes, beads, and other trifles, which were of

very little value in this country, and bartered them for all sorts of curiosities, shells, &c., which were very valuable in England. A pair of fine shells from the South Seas in many cases is worth ten guineas in England, which, perhaps, an English sailor obtained in exchange for an axe, which cost *2s. 6d.* The English sailor thought the natives very simple to give away so many valuable curiosities for such common things. The natives probably also thought the sailors very simple to give away such valuable things as axes, beads, &c., for such common things as shells. Each party, however, exchanged what was common and cheap in his own country for what was scarce and valuable. The axes were many times more valuable in Feejee than the shells; the shells were many times more valuable in London than the axes. An English sailor gave away what cost him *2s. 6d.*, and gained in exchange what was worth ten guineas; and the difference was his profit. Thus *both* parties gained by the exchange. The shells were worth many axes in London; the axes were worth many shells in Feejee; and this is the genuine spirit of commerce. This simple transaction is the type of all commerce. The value of the shells in London arises from their scarcity, and the desire of the people in London to possess them, and their willingness to give a high price to gratify that desire. The value of the axe in Feejee arises from the scarcity of axes there, and the desire of the Feejeeans to possess them. The coloured beads were just as valuable to the Feejeeans as diamonds to Europeans. The commerce of all nations is exactly similar in principle to that between the sailors and the savages. It all consists in exchanging what is cheap and common in two countries for what is scarce and dear; and of course both parties must gain by the very nature of the transaction.

But according to the doctrine of the Balance of Trade, England having exported goods to the value of *2s. 6d.*, and having imported goods to the value of ten guineas, still owed the Balance which required to be paid in gold!

The supporters of the Mercantile system quite overlooked the fact that in general the imports are the payment for the exports; and therefore the Profit consisted in the excess of the value of the imports above the value of the exports; and further-

more, that as the value of the exports was taken at the time they left the country, and many expenses had to be incurred in conveying them to the foreign country, and many expenses had to be incurred in bringing the imports into the country, beside all the merchant's profit, unless the value of the imports considerably exceeded the value of the exports, trade would be a dead loss.

It is perfectly clear, therefore, that it was the exact reverse of the doctrine of the Balance of Trade which was true.

For more than two hundred years this extraordinary delusion kept possession of the minds of nations; and commerce between them was reduced to a general scramble to obtain possession of the greatest possible quantity of the gold and silver in circulation. Every effort was made by war and legislation to obtain money, and nothing but money. As this system is now absolutely exploded, it would occupy too much space to describe fully its fatal effects. The first eight chapters of Smith's work is an elaborate refutation of it, and we must refer those who care to inquire further to that work. J. B. Say says that in the space of 200 years, during which statesmen were blinded by this strong delusion, fifty were spent in commercial wars arising directly out of this stupendous folly.

It is true that during this period a few sagacious men perceived the gross fallacy of the whole system, but they were solitary lights shining in darkness, and the darkness apprehended them not. Their isolated efforts were unheeded and forgotten, and it was not until a powerful sect arose in France that any permanent effect was produced upon the opinions of mankind. And that honour is unquestionably due to Quesnay and his followers. These men first proclaimed the doctrine that every nation is interested in the prosperity of its neighbours, and not in their destruction, with a power and an authority which has gone on increasing from that day to this; and having been developed by a long series of illustrious writers, has produced an entire revolution in the opinions of mankind, and in the policy of the most enlightened nations.

## CHAPTER V

ON THE RISE OF THE FIRST SCHOOL OF ECONOMISTS,  
CALLED THE PHYSIOCRATES, IN FRANCE

1. AT length, in the fulness of time, the sublime conception of Bacon was realised, and a new order of sciences came into existence—the sciences of society.

Everyone has heard of the glories of the reign of Louis XIV. : but few probably have any idea of the terrible reaction and the incredible disasters and misery of the end of his reign. To give anything like an adequate picture of the state of France at this period would far exceed our limits, and we must refer any readers who care to inform themselves of the matter to the accounts of contemporary writers, and also to M. Taine's 'History of the Ancient Régime.' It was in the midst of this unparalleled misery that Boisguillebert, the morning star of modern Economic science, arose ; and of course he was persecuted and insulted, as everyone is who speaks the truth. Soon after the death of Louis XIV. John Law came to Paris. Law is too often spoken of as a mere charlatan and an impostor ; but that is a very mistaken and unjust judgment. He was a man of consummate financial skill, and he published a series of fifteen letters, addressed to the Regent Orleans, on Credit and Banking, which are perfectly sound. Law's ideas and writings are divisible into two parts : the first, his doctrines on Credit and Banking : and, secondly, his doctrines on Paper Money. These two are quite separate and distinct, and must not be confounded. His doctrines on Credit and Banking are perfectly sound : but, thinking that the resources of Credit were too limited, he endeavoured to devise a system of Paper Money beyond the limits of Credit : and it was this system of Paper Money which produced the terrible catastrophe which is usually

associated with his name. But it has multitudes of believers at the present day : and the constitution of the Bank of England is partly founded on Law's principle.

In 1704 Law had presented his scheme of founding a Paper Money on the security of land to the Parliament of Scotland, which wisely rejected it. Being obliged to leave Scotland on account of a duel, he tried to induce Desmarest, the Minister of Finance of Louis XIV., to try his scheme ; but he, too, wisely declined, and Law was sent out of the kingdom. He returned to Paris after the death of Louis XIV., and by the favour of the Regent Orleans established a Bank in 1716, very similar in its constitution to the Bank of England, which was attended with marvellous results ; and immensely tended to restore the prosperity of the country. After three years of great prosperity, Law, with the sanction of the Regent, in 1719 determined to carry out his scheme of Paper Money : this terminated in the Mississippi disaster which is so well known. Speculating on this disaster, and on Law's Theory of Paper Money, Turgot, when a young man of twenty-two, began to meditate on the Theory of Credit, which led him afterwards into wider speculations. He formed a friendship with M. de Gournay, a merchant, who was an ardent free trader, but who died prematurely in 1750. He also became intimate with Quesnay, the physician to Louis XV., and associating with themselves a number of friends, they founded the sect of the **Economists**.

**2. François Quesnay**, the acknowledged chief of the sect, and the great father of the science, was born June 4, 1694, the son of an advocate, who owned a small property at Mercey, about ten leagues from Paris. Although a man of liberal and enlightened mind, he strangely neglected the education of his son, who was brought up and worked on his father's farm, and was not even taught to read. But his innate love of learning not only led him to learn to read, but to study Latin and Greek. Ambitious of a higher career than that of a peasant proprietor, he adopted surgery as a profession, and settled at Mantes, the country town of his native province. A series of fortunate accidents brought him into connection with a number of persons of high rank, who persuaded him to remove to Paris. He

published there a number of professional works of great merit, and was ultimately appointed physician to Louis XV. The king held him in the highest esteem, and ennobled him, giving him as his arms three pansies—*fleurs de pensée* in French—with the motto, *propter cogitationem mentis*, and used to call him 'Le Penseur.' He assigned him apartments in the palace at Versailles, in which the meetings of his friends were held, who were known by the name of the Economists; and Quesnay's works were printed at the press of the Palace. We can scarcely consider Louis XV. as a model monarch, but it must always be placed to his credit that the science of Political Economy was cradled under his auspices. Quesnay died in December 1774 of an attack of gout, having survived by three months the appointment of his most illustrious friend and disciple, Turgot, as Prime Minister of France: and having just witnessed the firstfruits of the triumph of his doctrine by the establishment of the complete freedom of the corn trade in France, both internal and external.

This sect of philosophers, reflecting on the intolerable misery they saw around them, struck out the idea that there must be some great natural science, some principles of eternal truth founded in nature itself, with regard to the social relations of mankind, the violations of which were the causes of that hideous misery they saw in their native land. The name they gave this science was **Natural Right**: and their object was to discover and lay down an abstract science of the natural rights of men in all their social relations. And this science comprehended their relations towards Government, towards each other, and towards **Property**. The term *Politique* might in a certain way have expressed this science, but that word has been so exclusively appropriated to the art of government that they adopted the name of **Political Economy** for it, and hence they were called the Economists. One of their number proposed the name of **Physiocratie**, or the government of the nature of things: and hence they were often called the Physiocrates. But that word, having been used to designate portions of their doctrine which are now shown to be erroneous, has fallen into disuse, and the term Political Economy, or Economical Philosophy, or Economics, has survived.



Many previous writers had advocated free trade as a good thing : but the Economists were the first to proclaim that there is a great natural science of Economics : and as soon as that is admitted, it follows that it must be constructed on the same principles, and by the same methods, that all other sciences are.

Now, whatever truth there may be in the doctrine that there are certain natural laws in the relations of men towards each other and towards Government, it is evident that the ground covered by the Economists, or Physiocrates, comprehended not one science only, but a whole multitude of sciences : and in this work we must pass over all the political and social parts of their philosophy, and confine ourselves solely to their doctrines of **Property**.

The department of the huge aggregate of sciences named Political Economy which related to Property they termed the '**Production, Distribution, and Consumption of Wealth** : ' we shall shortly explain what they meant by this expression, which has been quite misunderstood by recent writers.

#### *Outline of the Physiocrate Doctrine*

3. We may now give a short outline of the Physiocrate doctrine of Natural Order.

The Creator has placed man upon the earth with the evident intention that the race should prosper, and there are certain physical and moral laws which conduce in the highest degree to ensure his preservation, increase, well-being, and improvement. The correlation between these physical and moral laws is so close that if either be misunderstood, through ignorance or passion, the others are also. Physical nature, or matter, bears to mankind very much the relation which the body does to the soul. Hence the perpetual and necessary relation of physical and moral good and evil on each other.

Natural justice is the conformity of human laws and actions to natural order, and this collection of physical and moral laws existed before any positive institutions among men. And while their observance produces the highest degree of prosperity and well-being among men, the non-observance or transgression of

them is the cause of the extensive physical evils which afflict mankind.

If such a natural law exists, our intelligence is capable of understanding it ; for, if not, it would be useless, and the sagacity of the Creator would be at fault. As, therefore, these laws are instituted by the Supreme Being, all men and all States ought to be governed by them. They are immutable and irrefragable, and the best possible laws : therefore necessarily the basis of the most perfect government, and the fundamental rule of all positive laws, which are only for the purpose of upholding natural order, evidently the most advantageous for the human race.

The evident object of the Creator being the preservation, the increase, the well-being, and the improvement of the race, man necessarily received from his origin not only intelligence, but instincts conformable to that end. Everyone feels himself endowed with the triple instincts of well-being, sociability, and justice. He understands that the isolation of the brute is not suitable to his double nature, and that his physical and moral wants urge him to live in the society of his equals in a state of peace, good-will, and concord.

He also recognises that other men, having the same wants as himself, cannot have less rights than himself, and therefore he is bound to respect this right, so that other men may observe a similar obligation towards him.

These ideas—the product of reason, the necessity of work, the necessity of society, and the necessity of justice—imply three others—liberty, property, and authority, which are the three essential terms of all social order.

How could man understand the necessity of labour to obey the irresistible instinct of his preservation and well-being, without conceiving at the same time that the instrument of labour, the physical and intellectual qualities with which he is endowed by nature, belongs to him exclusively, without perceiving that he is master and the absolute proprietor of his person, that he is born and should remain free ?

But the idea of liberty cannot spring up in the mind without associating with it that of property, in the absence of which the first would only represent an illusory right, without an object.

The freedom the individual has of acquiring useful things by labour supposes necessarily that of preserving them, of enjoying them, and of disposing of them without reserve, and also of bequeathing them to his family, who prolong his existence indefinitely. Thus liberty conceived in this manner becomes property, which may be conceived in two aspects as it regards moveable goods on the earth, which is the source from which labour ought to draw them.

At first property was principally moveable ; but when the cultivation of the earth was necessary for the preservation, increase, and improvement of the race, individual appropriation of the soil became necessary, because no other system is so proper to draw from the earth all the mass of utilities it can produce ; and, secondly, because the collective constitution of property would have produced many inconveniences as to the sharing of the fruits, which would not arise from the division of the land, by which the rights of each are fixed in a clear and definite manner. Property in land, therefore, is the necessary and legitimate consequence of personal and moveable property. Every man has, then, centred in him by the laws of Providence, certain rights and duties ; the right of enjoying himself to the utmost of his capacity, and the duty of respecting similar rights in others. The perfect respect and protection of reciprocal rights and duties conduces to production in the highest degree, and the obtaining the greatest amount of physical enjoyments.

The Physiocrates, then, placed absolute freedom, or property—as the fundamental right of man—freedom of Person, freedom of Opinion, and freedom of Contract, or Exchange ; and the violation of these as contrary to the law of Providence, and therefore the cause of all evil to man. Quesnay's first publication, ' *Le Droit Naturel*,' contains an inquiry into these natural rights ; and he afterwards, in another called ' *General Maxims of the Economical Government of an Agricultural Kingdom*,' endeavoured to lay down in a series of thirty maxims, or fundamental general principles, the whole bases of the economy of society. The 23rd of these declares that a nation suffers no loss by trading with foreigners. The 24th declares the fallacy of the doctrine of the balance of trade. The 25th says—' Let entire freedom of commerce be maintained ; for the regulation

of commerce, both internal and external, the most sure, the most true, the most profitable to the nation and to the state, exists in entire freedom of competition.' In these three maxims was contained the entire overthrow of the existing system of Political Economy, which Quesnay and his followers developed ; and notwithstanding certain errors and shortcomings, they are unquestionably entitled to be considered as the founders of the science of Political Economy.

*On the Meaning of the Expression the ' **Production, Distribution, and Consumption of Wealth** '*

1. The student must carefully observe that the expression the '**Production, Distribution, and Consumption of Wealth**' is one and indivisible, and that its terms must not be separated. To understand its meaning clearly we must explain each separate word.

*The Physiocrate Meaning of **Wealth**. Distinction between **Value in Use** and **Value in Exchange***

The Physiocrates held that man can only preserve himself on the earth by obtaining from it those useful and agreeable objects which preserve him from pain and death. These useful and agreeable products were called **Biens**, goods, and are all composed of natural products. So long as persons or tribes live in a state of isolation, and themselves consume the products they produce, these products are called simply **Biens**.

A man living by himself would live on his produce, and would estimate various things only by their use to him. He would regulate the extent of his culture by his consumption, and he would not work to produce anything useless to himself.

But when men came to live in society they would find that they had numerous wants which they could not satisfy by means of their own products directly. And as this is the case with all men, they would find it advantageous to exchange some of their own products, which were in excess of their own wants, for the products of others which they require. When these *biens*, or products, then, are *exchanged*, and then only, they become **Richesses**, or **Wealth**. The Physiocrates unanimously held that the Quality of Wealth sprang out of an **Exchange**.

The Physiocrates restricted the term **Richesse**, or **Wealth**, exclusively to the products of the earth which are brought into Commerce and Exchanged. Thus they held the principle of **Wealth** to reside exclusively in **Exchangeability**. They then laid it down as a fundamental principle that all **Wealth** comes from the earth.

The earth only gives products which have the physical qualities necessary to satisfy our wants. But in society they acquire a new quality which springs from the communication of men with each other : this is Exchange, which attributes **Value** to them. This **Value** is a Quality only relative and accidental, not absolute and inherent in them. It is therefore only Commerce which causes **Value**: and **Value** is the relation which exists between two products which are exchanged.

Thus Quesnay says—‘ We must distinguish between goods (**Biens**) which have **Value in use** and not **Value in exchange**, and **Richesse**, **Wealth**, which has both **Value in use** and **Value in exchange**. For instance, the savages in Louisiana enjoy many **Biens**, goods, such as wood, game, the fruits of the earth, &c., which are not **Richesses**, **Wealth**, because they have no **Value in exchange**. But since some kinds of Commerce have been established between them and the French, the English, and the Spaniards, part of these **Biens** have acquired a **Value in Exchange**, and are become **Richesses**, **Wealth**.’

So Baudeau says—‘ Useful and agreeable objects proper for our enjoyment are called **Biens**, goods, because they conduce to the preservation, the propagation, and the well-being of men on the earth.

‘ But sometimes these **Biens**, goods, are not **Richesses**, **Wealth**, because they cannot be exchanged for other goods, or be used to procure other enjoyments. The products of nature, or the works of art, the most necessary or the most agreeable, cease to be **Richesse**, **Wealth**, when you lose the power of exchanging them and of procuring other enjoyments by means of this Exchange. One hundred thousand feet of the most beautiful oak in the world would not be **Richesses**, **Wealth**, to you in the interior of North America, where you could not devert yourself of its possession by means of an Exchange.

‘ The title **Richesse**, **Wealth**, therefore, supposes two things :

first, useful qualities, which render them *Biens*, goods ; secondly, the possibility of exchanging them, which enables these *Biens* to procure you others, which constitutes them **Richesses, Wealth.**'

So also Le Trosne says—'Man is surrounded by wants which are renewed every day. . . . Whatever they are, it is only from the earth that he can draw the means of supplying them. This physical truth, that the earth is the source of all *Biens*, is so self-evident that no one can doubt it. . . . But it is not sufficient to estimate products by their useful Qualities : we must consider the property they have of being exchanged against each other. . . . Products acquire, therefore, in a state of society, a new Quality, which springs from the communication of men with each other. This Quality is **Value**, which makes the products become **Wealth, Richesses** ; and so there is nothing superfluous, because the excess becomes the means to obtain what one wants.

'Value consists in the Relation of Exchange which exists between such and such products. . . . In a word, the Quality of *Richesse, Wealth*, supposes not only a useful property, but also the possibility of Exchange : because Value is nothing but the Relation of Exchange. The earth, in truth, only gives products which have the physical qualities to satisfy our wants : it is **Exchange** which gives them **Value** : a Quality relative and accidental. But as it is the products themselves which are the sole matter of exchange, it follows that we can say with truth that the earth produces not only all *Biens*, but all *Wealth, Richesses.*'

Thus the Physiocrate definition of *Wealth* was perfectly clear and intelligible : it was the products of the earth which are brought into Commerce, or which are Exchanged. It was the fundamental dogma that the Earth is the only source of *Wealth*, because, as they repeated a multitude of times, *Man can create Nothing, and Nothing can come out of Nothing.*

Thus the Physiocrates clearly and emphatically drew the distinction between **Value in use** and **Value in exchange** : and it was to the latter only that they restricted the term **Wealth.**

This distinction is obvious, and it is essential to be observed : although it is frequently overlooked at the present day. It is to confound the distinction between **Utility** and **Price**.

Thus we speak of a scientific discovery as being of great value : *i.e.* of great scientific utility : but that has nothing to do with its selling price : a picture may be of excellent merit, and give the greatest pleasure to lovers of art : but so long as it is confined to its owner it does not enter into Economics. The only Value which Economics has to do with is its selling Price in the market. So of many other things to which the word Valuable is often applied in common parlance, such as a horse or a book, &c. Economics has nothing to do with their Merit or their Utility, but only with their market Price.

*Meaning of the 'Production, Distribution, and Consumption of Wealth'*

5. Wealth, Richesse, being thus defined and restricted to the material products of the earth which are brought into Commerce and Exchanged, we have next to explain the meaning of the '**Production, Distribution, and Consumption**' of Wealth.

By **Production** the Physiocrates meant obtaining the raw produce of all sorts, agricultural, mining, hunting, fishing, &c., from the earth, and *bringing it into Commerce*.

But this rude produce was scarcely ever in a fit state to be used by men. It has to be fashioned and manufactured in a multitude of ways, and to be transported from place to place, and perhaps sold and resold more than once, before it is ultimately used.

All these intermediate operations of manufacture and transport from the original producer to the ultimate buyer, the Physiocrates termed **Traffic** or **Distribution**.

All the products obtained from the earth are destined for human use. But as the science only deals with those which were brought into Commerce, those which were used by the producers themselves were excluded from it. The final purchaser who bought the completed product for his own use and enjoyment was called the **Acheteur-Consommateur**, the **Buyer-Consumer**, because he **Consummated** or **Completed** the whole

operation. And by this purchase the whole transaction was **Consummé**, consummated or completed.

Hence the word Consummation meant **Purchase or Demand**. The Consumer is the **Purchaser**, the **Customer**.

The complete passage of the Product from the original Producer through all the intermediate stages and operations to the Consumer, the Physiocrates designated **Commerce** or an **Exchange**.

Thus to take a simple example. The farmer grows the corn and brings it into the market—he is the Producer.

He sells it to the miller, who grinds it into flour and sells it to the baker : the baker bakes it into bread and sells it to his customer—the miller and baker are Distributors.

The customer who takes the bread out of the market for use and enjoyment is the Consumer, *Consommateur*, because he completes the whole transaction.

The complete passage of the corn from the farmer till it is sold as bread to the Consumer, the Physiocrates called **Commerce** or an **Exchange**.

But as a matter of fact it was a series of three exchanges. The sale of the corn from the farmer to the miller was one exchange : the sale of the flour to the baker is a second exchange : and the sale of the bread to the customer is a third exchange.

Hence the student must carefully observe that the expression the '**Production, Distribution, and Consumption of Wealth**' is one and indivisible, and that its component terms must not be separated ; and that its true meaning is the **Commerce** or **Exchange** of the **Material Products** of the earth, and those only.

But as every Consumer, or Purchaser, must have some product to give in exchange for the one he purchased, he was also a Producer in his turn. Hence in an Exchange things are consumed on each side.

An exchange has only two essential terms, a Producer and a Consumer ; as they may exchange their products directly without any intermediate operations. Hence Production and Consumption constitute Exchange.



But Consumption was also frequently termed Distribution. Hence the expression Production and Distribution had exactly the same meaning of Exchange.

Hence the expression 'Production, Distribution, and Consumption of Wealth;' 'Production and Consumption of Wealth,' and 'Production and Distribution of Wealth,' all meant exactly the same thing, namely, the Commerce or Exchange of the Material Products of the earth, and those only.

#### *The Physiocrate Doctrine of Money*

6. One of the great services of the Physiocrats was to restore the true doctrine of the nature and use of Money.

The mercantile system held that Money is the only species of Wealth: the evident absurdity of this was so great that it naturally led to a reaction; and as usual in such cases the reaction went to the opposite extreme. It was held that Money is not Wealth at all, but only the **Sign** or *Representative* of Wealth.

This naturally led to the doctrine that as Money is only the means of obtaining other things, it is quite indifferent what it is made of, and that it is only the command of the sovereign which gives it value.

Turgot and the Physiocrats showed that Money is neither all Wealth nor is it not Wealth, but that it is simply a species of merchandise like any other, which is used for a particular purpose.

The Physiocrats only admitted an Exchange to be a transaction in which each party obtained a satisfaction, or something which he desired for use; that is when the desire of each party was Consummated.

Such an Exchange is termed Barter. But in the intercourse of society such Exchanges are comparatively rare. Persons want usually to obtain things from others, while those others want nothing from them. To obviate the inconveniences which would take place if no one could get what he wanted unless he had something at the same time to offer the other party which he wanted, people hit upon the plan of adopting some particular kind of merchandise which should be universally exchangeable.

The buyer therefore gave the seller of the product an equivalent quantity of this universally exchangeable merchandise, so that he could get any satisfaction he pleased from some one else. This merchandise is called **Money**. And the exchange of a product for Money is called a **Sale**. The person, however, who has received the money has not got a **Satisfaction**: his desire is not **Consummated**, or **completed**. In order to obtain a satisfaction he must exchange away the Money for some product which he desires. Hence the Physiocrats called a Sale a demi-exchange.

Le Trosne says : ' Il y a cette différence entre l'échange et la vente, que dans l'échange tout est *consommé* pour chacune des parties ; elles ont la chose qu'elles voudraient se procurer, et ils n'ont plus qu'à jouir. Dans la vente au contraire, il n'y a que l'acheteur qui ait rempli son objet, parce qu'il n'y a que lui qui soit à portée de jouir. Mais tout n'est pas *terminé* pour le vendeur.'

And again: ' L'échange arrive directement au but, qui est la *consommation* : il n'a que deux termes, et se termine par un seul contrat. Mais un contrat où l'argent intervient n'est pas *consommé*, puisqu'il faut que le vendeur devienne acheteur ou par lui-même, ou par l'interposition de celui auquel il transportera son argent. Il y a donc, pour aboutir à la *consommation*, qui est l'objet ultérieur, au moins quatre termes et trois contractants, dont l'un intervient deux fois.'

In fact, although Money is an Equivalent merchandise to the product it is exchanged for, its real use and purpose is to be a Right or Title, to obtain anything else which its possessor requires. Hence its true nature is that of a Bill of Exchange on the general community.

Thus Baudeau says : ' This coined Money in circulation is nothing, as I have said elsewhere, but **Effective Titles** on the general mass of useful and agreeable enjoyments, which cause the well-being and propagation of the human race.

' It is a kind of **Bill of Exchange** or **Order**, payable at the will of the bearer.

' Instead of taking his share in kind of all matters of subsistence, and all raw produce annually growing, the sovereign

demands it in Money, the **Effective Title**, the **Order**, the **Bill of Exchange**.'

Hence the Physiocrates saw clearly that Money is only the highest form of Credit, a truth which we have shown further on that all Jurists and Economists have seen.

Any merchandise might have been chosen for this purpose ; but there are many reasons why gold and silver are superior to all others for this special purpose. But this kind of exchange differs in no way from any other ; and the Money given in exchange is the **Equivalent** of the merchandise. Thus, though everyone agrees to take Money in exchange for products, it is not the **Sign** or the **Representative** of products, but their **Equivalent**. Hence, though Money has uses of its own, yet its value, or exchangeable power, depends on exactly the same laws as the value of any merchandise. Money, therefore, like every other exchangeable product, is Wealth itself, but only a very small part of the general Wealth.

Such being the only use of Money, more of it than is absolutely required is a great loss to a country, because it can only be purchased with an equivalent amount of products ; and their value is withdrawn from being employed in productive operations. Any country which has plenty of products can at any time purchase any amount of Money it may require. The Physiocrates, therefore, strongly urged the entire abolition of all restrictions on the free export of Money, and also the entire abolition of Usury Laws.

*Doctrine of the Physiocrates that in an Exchange neither side gains*

7. It has been seen that the necessary consequence of the doctrine that Money only is Wealth, is that in an exchange what one side gains the other loses ; which doctrine was the origin of many commercial wars.

The Physiocrates held that in an Exchange neither side gains. Because they alleged that it is always an Exchange of equal value for equal value. From this doctrine, which they maintained with unflinching pertinacity, they drew the most extraordinary consequences, as we shall see immediately.

*The Physiocrate Doctrine of **Productive Labour**, and of  
**Sterile or Unproductive Labour***

8. By **Productive Labour** the Physiocrats meant Labour which left a Profit after defraying its Cost.

They maintained that Agricultural Labour of all sorts, that is the Labour employed in obtaining all sorts of raw produce from the earth, is the only species of Productive Labour ; or the only one which leaves a surplus Profit after defraying its Cost.

The surplus of the raw produce of the earth after it had defrayed all the Cost of its Production the Physiocrats termed the **Produit Net** ; and they alleged that it is the sole augmentation of National Wealth, and that out of it all Taxation should come ; as we shall show in a future chapter.

They maintained that all other Labour expended on the raw produce of the earth, either in fashioning it, or manufacturing it, or in transporting it from place to place, is **Sterile** and **Unproductive**, and adds nothing to the Wealth of the Nation. And they maintained that neither the Labour of artisans nor the operations of Commerce in any way enrich the country.

They alleged that the Labour of artisans is Sterile or Unproductive, because though their Labour adds to the Value of the product, yet during the process of manufacture, the labourer consumes his subsistence, and the value added to the product only represents the value of the subsistence destroyed during the labour. Hence, though in this case there is an augmentation of Value, there is no augmentation of Wealth.

Again, they maintained that Commerce cannot enrich a country because it is always an exchange of equal value for equal value. Over and over again the Physiocrats alleged that Commerce being only an exchange of equal Value, neither side can gain or lose. They held that the only use of commerce is to vary and multiply the means of enjoyment ; but that it does not *add* to national Wealth ; or if it does, it is only by giving a value to the products of the earth which might otherwise fail in finding a market. They contended also that, as all exchanges are merely equal value for equal value, the same

principles also apply to sales, and that the gains which traders make are no increase of Wealth to the nation.

The Physiocrates maintained these doctrines through long and repeated arguments ; and they came to be known as their distinctive doctrines. How men of the ability of the Physiocrates could maintain that a country cannot be enriched, either by the Labour of artisans or by Commerce, with the examples of Tyre, Carthage, Venice, Holland, Florence, England, and innumerable other places before them, is incomprehensible. With such patent glaring *facts* before them, it is surprising that they were not led to suspect the truth of their reasonings. It is one of those aberrations of the human intellect that we can only wonder at and not explain.

With such views they held that the internal commerce of a country conduces nothing to its Wealth, and foreign commerce very little. They called foreign commerce only a *pis-aller*. One truth, however, they perceived. They saw that Money is the most unprofitable merchandise of any to import, and that merchants never import money when they can import products. Therefore they called the import of money in foreign commerce only the *pis-aller* of a *pis-aller*.

*The Physiocrates excluded Labour and Credit from the Title of Wealth*

9. The Physiocrates restricted the term Wealth to the material products of the earth, which are brought into commerce and exchange. They expressly excluded Labour and Credit from the title of Wealth, because they alleged that to admit Labour and Credit to be Wealth would be to admit that Wealth can be created out of Nothing. And they repeated a multitude of times that *Man can create Nothing*, and that *Nothing can come from Nothing*.

Le Trosne endeavours to point out why Labour or Personal Services are not Wealth ; because he says that they are only relative to the person ; they are not transmissible, nor inheritable, nor transferable ; they do not result in a product which can be transferred, and whose value can be determined by competition ; whereas products have a value in themselves ; and acquire one by industry, which may be resold.

Le Trosne also alleges that Credit is not Wealth. He distinguishes between Money which has Intrinsic Value, and Bills which have only value from the presumed Solvency of the Debtor. He maintains that Credit is not Wealth, but only a Title to be paid in Wealth.

*Defects of the Physiocrate Doctrine*

10. We have given a sufficient outline of the Physiocrate Doctrine ; we must now point out in what it was defective.

In the first place it was deficient in **Generalisation**. It placed the principle of Wealth exclusively in Exchangeability ; but confined that to the material products of the earth, which satisfied the wants of the body. But man has mental wants as well as bodily ones. He does not live by bread alone. His mind has necessities and enjoyments as well as the body ; and there are persons who produce things useful and agreeable for the mind as well as the body. These are equally exchangeable and valuable as material products, and therefore should be equally included in the term Wealth, as we have seen was done by the author of the *Eryxias* in ancient times.

The Physiocrates only admitting material products to be Wealth, alleged that all exchanges are of products against products. But this is a most evident error. The producer of a material product does not always require a material product in exchange. He may want instruction or enjoyment ; or a service like education, or that of a lawyer or physician. Hence a material product is often exchanged against a mere service.

Moreover Quesnay observed that valuable paper supplied the place of money, and that there is a commerce in it just like money itself.

When Le Trosne says that Money has **Intrinsic** Value, he contradicts himself on the very nature of Value ; he himself says that Value is purely relative and not inherent. Money has no Value unless other persons will give something in exchange for it. Hence Money has value for the very same reason that a Bill of Exchange has ; but while there is only one person who is bound to give something in exchange for it, multitudes of persons will give things in exchange for money ; hence Money

has General Value, a Bill has only Particular Value. It is a difference in degree, but not in kind.

Le Trosne was an advocate ; he must have studied Roman Law ; he must have known that Rights are expressly included under the titles *Pecunia, Res, Bona,* and *Merx* in Roman Law.

In fact, the Physiocrates fell into the same error regarding Credit as they delivered the world from regarding Money. They clearly saw that Money is not a **Sign**, or a **Representative**, but an **Equivalent**.

They repeatedly termed Money a Bill of Exchange, an Order ; hence if Money is a Bill of Exchange, a Bill of Exchange is a species of Money. Credit bears exactly the same relation to Money that Money does to products. Credit is a Title to be paid in Money, and Money is a Title to be paid in products. And as Money is not the **Sign** or **Representative**, but the **Equivalent** of products, so neither is Credit the **Sign** nor the **Representative**, but the **Equivalent** of Money, or of products. In fact, Credit is a mass of independent exchangeable property, just as Money is, and it is the subject of the most gigantic commerce of modern times.

We have already seen how the instinctive scientific spirit of the ancients made **Exchangeability** the sole essence and principle of Wealth, and included both Labour and Credit in the term.

**11.** The amazing doctrine of the Physiocrates that neither the Labour of artisans nor the operations of Commerce enrich a nation ; as also that in an Exchange neither side gains, but that it is always an exchange of equal Values, roused a reaction against them ; and two writers arose simultaneously who had precisely the same object, namely, to prove that both the Labour of artisans and the operations of Commerce are **Productive**, and also that in an Exchange *both* sides gain.

These two writers were Adam Smith and Condillac, who both published a work in the same year, 1776, with the same objects : and they are each the parent of a school of Economists.

Adam Smith adopted the term Production and Distribution

of Wealth, though he expressly explains that by this he means the principles of Commerce.

A large body of Economists have adopted the expression 'Production, Distribution, and Consumption of Wealth,' or some variation of it, as the definition of Political Economy. This group of writers is usually termed the **Second School of Economists**.

Condillac, who published his work in the same year as Adam Smith, began at once by defining Economic Science to be the Science of Commerce or Exchanges. The most recent and advanced Economists in the world have seen, for the reasons explained in the following chapters, that though Commerce or Exchange, and the Production, Distribution, and Consumption of Wealth were originally identical and equivalent expressions, yet that the former is far more clear and intelligible. Hence they adopt the Science of Exchanges or of Commerce, as the Definition of Political Economy, or Economics, as the Science is now generally termed. This group of writers is termed the **Third School of Economists**.

#### *The Physiocrats Founded a New Order of Sciences*

**12.** The Physiocrats have the immortal glory of having established absolute freedom of Commerce in every particular, on a great moral basis, as the fundamental right of mankind, proved to be true equally by reason and experience; and they only missed the glory of seeing it finally established as national policy by the French Revolution. In 1774 Turgot, the most illustrious friend of Quesnay, was appointed Prime Minister of France, and had the satisfaction of abolishing all restrictions on the internal commerce and export of corn, and thus was enabled to gladden the heart of his dying master by seeing the first fruits of his philosophy. And although this great man was driven from power by the selfish aristocracy, whom he would probably have saved from the catastrophe which was impending over them, Free Trade doctrine had made such progress that in 1786 Mr. Pitt concluded a treaty with France by which all impediments to the free intercourse between the nation and all their possessions were abolished, and only subject to the payment of moderate duties.



But the deluge of the French Revolution swept away this beneficent work and replunged the nations into Economic darkness, from which England only began to emerge in 1822 ; and the glory of finally assuring the triumph of Commercial liberty in England accrued to the disciples of the Second School of Economists.

**13.** It is sometimes urged that the Physiocrates made the science of Political Economy too dogmatic or *à priori*. But this censure must be taken with a qualification. If we knew all the true principles of things, then all science would be *à priori*. As Bacon long ago pointed out, the very perfection of science is to attain the *à priori* state : and the more true principles are discovered, the nearer it approaches the *à priori* state. The Physiocrates, contemplating the position of man on the earth, and the evident intention of the Creator, arrived *inductively*, or by observation, at the principle that Freedom of Person, Freedom of Opinion, and Freedom of Commerce or Exchange, are the fundamental rights of mankind, most conducive to human happiness, increase, and improvement ; and that all violations of them are injurious to the human race.

Adopting, then, these fundamental principles, they found a state of society existing altogether violating these rights, and therefore afflicted with innumerable evils. And has not history amply vindicated their doctrines? What have brought the greatest evils on man? Slavery, Religious Persecution, and Commercial restrictions. What have been the causes of the greatest number of wars during the last 1800 years? History answers, Religion and Commerce. If the doctrines proclaimed by the Physiocrates had always been held to be true, as they now are by all enlightened persons, nine-tenths of the wars which have desolated the earth during the last eighteen centuries would never have occurred.

**14.** The great speculators of the Middle Ages held the material world in low esteem, as unworthy of the attention of philosophers. But it is the glory of the Baconian Philosophy to have extended the dominion of mind over matter, and brought into subjection and turned to profit the forces of nature. The philo-

sophers who proclaimed that Law is of Divine institution, and that there is a system of Law which is innately right, anterior to all human law, confined their ideas to moral rights. But it is the glory of the Quesnayan, or Economical, Philosophy to have shown that there is a great moral relation existing not only among men, but connecting man with the material world, most intimately connected with the well-being of the human race, which is capable of being discovered and established by human reason as well as any of the other sciences which are rightly considered as the triumphs of the human intellect. Thus Bacon extended the dominion of mind over matter, and Quesnay ascertained the rights of man relating to matter.

15. The Philosophy of the Economists differs from all others in taking the individual man as the basis of society. Almost all other systems hold the individual as subordinate to society : and it is certain that individual property is not that which originally prevailed throughout the world. But, instead of sacrificing man to society, the Economists declared that society only exists for the purpose of preserving and defending the rights of individuals. 'Governments,' says Turgot, 'are apt to immolate the well-being of individuals to the pretended right of society. They forget that society is only made for individuals, and that it is only instituted to protect the right of all in insuring the performance of mutual duties.'

How much in advance of their age the Physiocrats were can only be appreciated by those who will take the pains to acquire a knowledge of the state of society and of opinion when they lived. It is manifestly quite impossible to give any adequate picture of these in the limits of this work. They founded a new order of sciences ; and few are aware of how much their ideas permeate modern society. They were the leaders in that great change, or movement as it has been called, of society from *Status* to *Contract* : and their principles are constantly gaining influence throughout the world. Therefore, although certain portions of their doctrines are erroneous, and have been set aside by subsequent Economists, they are entitled to imperishable glory in the history of mankind.

## CHAPTER VI

REACTION AGAINST THE PHYSIOCRATES; RISE OF THE  
SECOND SCHOOL OF ECONOMISTS

1. THE extraordinary doctrines of the Physiocrats that neither commercial nor manufacturing industry enriches a nation, so contrary to the plainest facts of history, but which they maintained with incomprehensible obstinacy, naturally produced a reaction against them. Moreover, their assertion that in an exchange neither side gains was seen to be fallacious. The first to declare against them were the Italian Economists. But in so very general an outline as this, we have no space to give an account of them, as they never formed a distinct school. There was a cluster of writers, such as Verri, Beccaria, Genovesi, Delfico, and many others, who ardently advocated Freedom of Trade. But they never formed a school, as the English and French Economists did; and no Italian work was ever adopted as a national text-book, like Adam Smith, Ricardo, and Mill were in England, or J. B. Say was in France.

In the same year, 1776, appeared simultaneously the two works which lead the two modern schools of Economists, Adam Smith's *Wealth of Nations*, and Condillac's *Le Commerce et le Gouvernement*. These works, though apparently different in name, are similar in conception. They both begin by taking the Theory of Value, or of free commerce, as the natural order of things, and then afterwards consider the effects of interference by Government. They were the friends and associates of the Physiocrates, and emanated from their school; but they both revolted against the doctrine that manufacturing and commercial industry do not enrich a nation. Moreover, they both maintained that in an exchange both sides gain. Smith's work attained immediate popularity; but Condillac's was forgotten

amid the crash of the French Revolution. Smith speaks of the Production and Distribution of Wealth ; Condillac at once says that Economics is the Science of Commerce. The fundamental conception of Smith and Condillac was the same, but as Smith was the parent of the earlier school, we shall follow his line first.

2. Adam Smith, who first published a work on Political Economy which greatly influenced public opinion in this country, was born at Kirkaldy, Fifeshire, in Scotland, on June 5, 1723, a posthumous son of the Comptroller of Customs there. He was sent to the University of Glasgow in 1737, where he gained an exhibition on the Snell foundation to Balliol College, Oxford. He resided in that university for seven years. In 1751 he was appointed Professor of Logic, and in the following year Professor of Moral Philosophy in the University of Glasgow. It is said that in his lectures he advocated the doctrines of Free Trade, which were then adopted by the most enlightened men in France, Italy, and Spain. But no account of these lectures, not even one line of them, has been preserved, so that we have no means of comparing his views then with those he published in 1776.

In 1759 he published his professorial lectures on the *Theory of the Moral Sentiments*, a work which gained a rapid reputation, and attracted the attention of the guardians of the young Duke of Buccleuch to him. In 1760 he accepted the appointment of tutor to the Duke, and in March 1764 he set out with him for the Continent. Passing through Paris, he resided for about eighteen months at Toulouse. It is impossible to say whether Smith had any knowledge of the doctrines of the Physiocrats while he was at Glasgow ; but he must have been naturally interested in them while he resided in France. At Christmas, 1765, Smith and his charge went to Paris, where they stayed about a year. While there he formed an intimacy with the sect of the Economists, and held Quesnay, their chief, in such esteem, that he intended to have dedicated the *Wealth of Nations* to him, only he died before it was published.

At the end of 1766 Smith returned to Scotland, and settled at Kirkaldy, and remained there ten years, during which he was

occupied with the composition of the *Wealth of Nations*, which was published in 1776.

This work is divided into five books, the first two of which give what might be called the positive part of the Science as understood by him. The third book is on the different progress of opulence in different nations; the fourth book is a formal refutation of the Mercantile system and the doctrines of his friends the Physiocrates; and the fifth is on the revenues of the State.

At present we must confine our attention to his conception of the positive science. The first book is on what he calls Production and Distribution; but, in reality, it is the Theory of Value, or of Commerce; and the word **Wealth** is the basis of the whole science; we must, therefore, investigate what Smith means by **Wealth**.

#### *On Smith's Definition of Wealth*

3. It is somewhat strange that, though Smith entitled his work 'An Inquiry into the Nature and Causes of the Wealth of Nations,' he nowhere tells us what he means by **Wealth**. Whately has well observed that Smith's title supplies only a name for the subject matter, and not for the science itself.

We must now endeavour to collect what Smith meant by '**Wealth**.' We must remember that by **Wealth** the Physiocrates meant the Material Products of the earth which are brought into Commerce and exchanged, and those only. They expressly excluded **Labour** and **Rights** from the term **Wealth**; thus they made **Labour**, **Materiality**, and **Exchangeability** as necessary to **Wealth**.

Smith does not anywhere expressly define **Wealth**; but at the end of the Introduction he speaks of 'the real wealth of the country, the annual produce of the land and labour of the society'; and, from the number of times he repeats this phrase, we may assume that to be very much his idea of it, especially as it was an expression which was in common use by the Economists of several other countries.

Now, upon examining this expression, it is very evident that it is ambiguous. It is not clear whether it means the annual

produce of land alone, and the annual produce of labour alone, or the annual produce of land and labour combined. It is probable that he meant the latter.

Whichever way the expression is interpreted, it is manifest that it is far too wide ; because, if it be laid down absolutely that '*the annual produce of land and labour*,' either separately or combined, is Wealth, then every useless product of the earth is Wealth, as well as the most useful—the tares as well as the wheat. If a diver fetches a pearl oyster from the deep sea, the shell is as much the 'produce of land and labour' as the pearl itself. So if a nugget of gold or a diamond is obtained from a mine, the rubbish it is found in and brought up with is as much the 'produce of land and labour' as the gold or the diamond ; and innumerable other instances of this sort may be cited.

So also every useless work done would be Wealth. Thus if a number of labourers were to raise a mound in Salisbury Plain, or build a palace in the middle of the Sahara, that would be Wealth ; so if a number of dirty children were diligently occupied in making mud-pies, they would be augmenting the wealth of the country.

Moreover, this definition is far too narrow. The land itself, on which a city is built, is wealth ; the owners of it obtain a great revenue by simply allowing other people to build houses on it. The land on which London is built is worth thousands of millions of money. And the land itself is certainly not 'the annual produce of land and labour,' either separately or combined.

*Smith classes Human Abilities or Labour as Wealth*

4. Moreover, Smith enumerates under the title of Fixed Capital, '**the acquired and useful Abilities** of all the inhabitants or members of the society. The acquisition of such talents by the maintenance of the acquirer during his education, study, or apprenticeship, always costs a real expense, which is a capital fixed and realised as it were in his person. These **Talents**, as they make a part of his **Fortune**, so do they likewise of that of the society to which he belongs.' So also he says—'The Property which every man has in his own **Labour**,

as it is the original foundation of all other property, so it is the most sacred and inviolate. The **Patrimony** of the poor man lies in the strength and dexterity of his hands.' These passages entirely coincide with the argument of the *Eryxias* quoted in a preceding chapter. Thus it is seen that Smith expressly classes Human Abilities, or Labour, as Wealth. Now Human Abilities are certainly not the 'produce of land,' nor are they the 'produce of land and labour' combined. It may be said that acquired abilities are the produce of labour, but certainly natural abilities are not the produce of labour. Nor is Labour 'the annual produce of land and labour.'

Thus Smith has already broken away from the Physiocrate restriction of wealth to the *material products* of the earth; because they expressly excluded Labour from the title of Wealth. And now we see the inconvenience of the Physiocrate nomenclature. Labour is an exchangeable commodity. It has value: it may be bought and sold; and therefore its value is measured in money. But how are we to speak of the Production, Distribution, and Consumption of Labour?

Thus Smith in these and many other passages expressly acknowledges the Second order of Economic Quantities, namely Labour, to be Wealth. And he has a chapter discussing Wages, or the Price of Labour.

#### *Smith admits Rights to be Wealth*

5. Hence the definition of the Science of Political Economy as the 'Production, Distribution, and Consumption of Wealth,' has received a very awkward wrench by introducing Labour as Wealth. But still worse remains behind. For under the term Circulating Capital, Smith expressly includes Bank Notes, Bills of Exchange, and other Securities, which are merely Rights of action recorded on paper. But these Rights of action are Credit: hence Smith expressly includes Credit under Capital.

He says—'A particular banker lends among his customers his own Promissory Notes, to the extent we shall propose of a hundred thousand pounds: as these Notes serve all the purposes of money, his debtors pay him the same interest as if he had lent them so much money. This interest is the source of

his gain. Though he has in general in circulation, therefore, notes to the extent of a hundred thousand pounds, twenty thousand pounds in gold and silver may frequently be a sufficient provision for answering occasional demands. By this operation, therefore, twenty thousand pounds in gold and silver perform all the functions which a hundred thousand would otherwise have performed. The same exchanges may be made, the same quantity of consumable goods may be circulated and distributed to their proper consumers by means of his promissory notes to the value of a hundred thousand pounds, as by an equal value of gold and silver money.'

Again—'Let us suppose, for example, that the whole circulating money of some particular country amounted at a particular time to one million sterling; that sum being then sufficient for circulating the whole annual produce of their land and labour. Let us suppose, too, that some time thereafter different banks and bankers issued promissory notes payable to bearer to the extent of one million, reserving in their different coffers two hundred thousand pounds for answering occasional demands. There would remain, therefore, in circulation eight hundred thousand in gold and silver, and a million of bank notes, or eighteen hundred thousand pounds of paper and money together.'

Again—'A paper money consisting in bank notes issued by people of undoubted credit, payable on demand, without any condition, and in fact always readily paid as soon as presented, is in every respect equal in value to gold and silver money, since gold and silver money can at any time be had for it. Whatever is either bought or sold for such paper must necessarily be bought or sold as cheap as it could have been for gold and silver.'

These extracts are quite sufficient to prove the point we are enforcing, that Smith admits one class of Rights to be Circulating Capital or Wealth. He puts a million of notes on exactly the same footing as an equal amount of gold and silver. He admits that bankers, by issuing a million of notes, augment the mass of exchangeable property to that amount. Now what are these Notes? They are simply so many circulating Debts. They are the species of property called **Credit**: and thus



we see that Smith expressly classes Credit under the term Capital.

This class of Rights, however, is only one of a gigantic mass of various kinds of Rights, which since Smith's time have increased in a vastly greater ratio than material property.

Now these Rights of action, or Credits or Debts, as well as the gigantic mass of other kinds of Rights which are bought and sold, are certainly not the 'annual produce of land and labour.'

Thus we see that Smith classes both Labour and Rights under the title of Wealth, which the Physiocrats expressly excluded from that term; and thus he completely overthrew the Physiocrate dogma that the earth is the sole source of wealth.

Hence we see that Smith's definition of Wealth as the annual 'produce of land and labour'—assuming that we have interpreted him correctly—entirely fails. It is at once far too wide and far too narrow. It includes a mass of things which can by no means be called Wealth, and it excludes by far the greater portion of what Smith himself classes as Wealth.

6. Such a definition of Wealth is also open to another manifest objection, which is patent from his own work. For if it be laid down absolutely that the 'annual produce of land and labour' is Wealth, it clearly follows that, if anything be produced by land and labour, it must be Wealth in all times and in all places; that what is once Wealth must always be Wealth. But universal experience shows that such a doctrine is utterly erroneous: and it was one of the points expressly enforced by Socrates in the *Eryxias*, that anything is Wealth only where it is **Demanded** and Wanted, that is, when it is *χρήσιμον*.

And after laboriously inculcating through several hundred pages that Labour and Land are the essentials of Wealth, Smith admits this. He says—'A guinea [which may be admitted to be the produce of land and labour] may be considered as a **Bill** (*i.e.* a Right) for a certain quantity of necessaries and conveniences upon all the tradesmen in the neighbourhood. The revenue of the person to whom it is paid does not so properly consist in the piece of gold as in what he can get for it, or in what he can exchange it for. *If it could be exchanged*

*for nothing it would, like a Bill upon a bankrupt, be of no more Value than the most useless piece of paper.'*

Thus, after all, Smith comes back to **Exchangeability** as the real essence of Value.

The incongruity of Smith's conception of the very word which is the basis of the whole Science is thus apparent. He first says in a multitude of places that the 'annual produce of Land and labour' is absolute Wealth, and then some hundreds of pages afterwards he says that, unless it is **Exchangeable**, it is not Wealth at all!

So far, however, he makes Labour and Materiality as necessary to Wealth, and in this he is still under the bondage of the Physiocrats; but afterwards he classes human abilities as Wealth in which there is certainly no Materiality; nor does it seem accurate to class Labour itself as the produce of Labour; and after that again he classes Rights of Action, or Credit, as Wealth, in which there is neither Labour nor Materiality.

It is manifest that these two fundamental conceptions of Wealth, as the 'annual produce of land and labour' and 'exchangeability,' do not coincide; for there are many things which are the 'produce of land and labour' which are not exchangeable, or which are exchangeable only in some places and not in others, and at some times and not at others; and there are stupendous masses of Exchangeable Property—nay, in this commercial country enormously the greater portion—which is in no way whatever the 'produce of land and labour.'

The utter incongruity of ideas in the beginning of Smith's work with those in the latter half has often been observed. Ricardo has adopted the former half of the work, and Whately the latter. Ricardo adopts Labour as the essence of Wealth and Value, and Whately adopts Exchangeability. Mill's work is the development of Ricardo's views, whilst this work is the development of Whately's. In accordance with the unanimous doctrine of antiquity, Exchangeability is adopted as the sole essence and principle of Wealth; and it is shown that there are three orders of Exchangeable Quantities exactly as the ancients said, and Smith has admitted.

*On J. B. Say's Definition of Wealth*

7. The next most popular work in order of time is J. B. Say's *Cours d'Economie Politique*, which holds very much the same position in France as Smith's *Wealth of Nations*, does in England. As this work is not very generally read in England, we shall not criticise it at any length, but merely give some of his ideas on Wealth.

Say says :—'The exclusive possession which in the midst of society clearly distinguishes the property of one person from the property of another in common usage is that to which the title of **Wealth** is given. The blessings of nature, which everyone enjoys in common, are not included in the inventory of a man ; but there are included in it that portion of social riches which belong to him individually, which he has acquired by his own labours, or which he holds by gift. or inheritance. Under this title are included not only things which are directly capable of satisfying the wants of man, either natural or social, but the things which can only satisfy them indirectly, such as money, Instruments of Credit (*Titres de créance*).'

It is to be remarked with respect to this definition that it wholly omits the quality of **Exchangeability** which the Physiocrates made the essence of Wealth, and fails to draw the distinction between commodities which are used for the enjoyment of the owner which the Physiocrates termed **Biens**, and those which are brought into commerce and exchanged, which alone they termed **Richesses**.

Say also dwells with great care on Intellectual Wealth, which, indeed, he has often been supposed to have been the first to introduce into Economics. This, however, we have seen is an error, as Smith expressly included Human Abilities and Labour as Wealth, though in so cursory a way as almost to have escaped notice. But Say enforces it many times. 'He who has acquired a talent at the price of an annual sacrifice enjoys an accumulated Capital, and this Wealth, though immaterial, is nevertheless so little fictitious that he daily exchanges the exercise of his art for gold and silver.' In the epitome at the end of his *Traité* he defines an immaterial product to be a utility which is not fixed in any material substance, such as

the services of a physician, a lawyer, a civil and military functionary, and, indeed, we may say Labour of any sort which expires in the use.

This doctrine he subsequently repeats in several places. Thus, he says, 'since it has been proved that immaterial property such as talents and acquired personal abilities form an integral part of social Wealth.'

So again—'You see that utility, under whatever form it presents itself, is the source of the Value of Things; and what may surprise you is that the utility can be created, can have Value, and become the subject of an exchange without being incorporated in any material object. A manufacturer of glass places Value in sand; a manufacturer of cloth places it in wool; but a physician sells us a utility without being incorporated in any matter. This utility is truly the fruit of his studies, his labours, and his capital. We buy it in buying his opinion. It is a real product, but immaterial.' . . . 'The science, the talent of a physician, a surgeon, a professor, are they not acquired capital yielding a revenue? The oral instructions they have received are yet not attached to any material product.'

In his synoptical table of what constitutes the productive funds of a nation he expressly enumerates intellectual and industrial faculties, and he treats immaterial products and services as vendible commodities in all respects on the same footing as material products.

Thus Say expressly includes Labour as Wealth, and we have seen that he also includes Rights or *titres de créance*.

#### *J. S. Mill on the Definition of Wealth*

8. We now come to a writer from whom strict logical consistency might have been expected. We shall quote a few extracts from Mill's Logic to show how he appreciates the necessity of a clear understanding of the meaning of fundamental conceptions. He says—'Since reasoning or inference, the principal subject of Logic, is an operation which usually takes place by means of words, and in complicated cases can take place in no other way; those who have not a thorough insight into the signification and purposes of words will be under

chances amounting almost to certainty of reasoning or inferring incorrectly. And logicians have generally felt that, unless in the very first stage they removed the fertile source of error, unless they taught their pupil to put away the glasses which distort the object, and to use those which are adapted to his purpose in such a manner as to assist, not perplex, his vision, he would not be in a condition to practise the remaining part of their discipline with any prospect of advantage. Therefore it is that an inquiry into language, so far as it is needful to guard against the errors to which it gives rise, has at all times been deemed a necessary preliminary to the study of logic.'

'But there is another reason of a still more fundamental nature why the import of words should be the earliest subject of a logician's consideration, because without it he cannot examine into the import of propositions.'

So again—'But to penetrate to the more hidden agreement on which these obvious and superficial agreements depend is often one of the most difficult of scientific problems. As it is among the most difficult, so it seldom fails to be among the most important. And, since upon the result of this inquiry respecting the causes of the properties of a class of things there incidentally depends the question—what shall be the meaning of a word? Some of the most profound and most valuable investigations which philosophy presents to us have been introduced by, and have offered themselves under the guise of inquiries into the definition of a name.'

Out of numerous other passages to the same purpose we may cite one more—'And the student of logic in the discussion even of such truths as we have cited above, acquires habits of circumspect interpretation of words, and of exactly measuring the length and breadth of his assertions, which are among the most indispensable conditions of any considerable mental attainment, and which it is one of the primary objects of logical discipline to cultivate.'

Now, from a writer on logic, like Mill, we should naturally expect the strictest logical consistency in the use of fundamental conceptions, especially in such a one as the word **Wealth**, the basis of the whole science. We are, therefore, somewhat sur-

prised to read in his first page, 'Everyone has a notion sufficiently correct for common purposes of what is meant by wealth.' We are certainly somewhat astonished to hear this. Nor does our surprise diminish when we read in the same page 'It is no part of the design of this treatise to aim at metaphysical nicety of definition where the ideas suggested by a term are already as determinate as practical purposes require.' We shall now see whether Mill himself has any consistent notions on the meaning of the word **Wealth**.

A little further on we have this expression, '*Everything forms therefore a part of **Wealth** which has **Power of Purchasing**.*' Now here we have a perfectly clear and definite conception of Wealth, exactly agreeing with that of Aristotle and all ancient writers. And this definition manifestly includes all the three orders of Exchangeable Quantities, Material products, Labour, and Rights. Also if Wealth be *anything* which has purchasing power, the Production of Wealth must be simply the Production of anything which has purchasing power. In this passage Mill makes **Exchangeability**, and that only, the essence of Wealth. Now, having got this definition, which is perfectly correct, we might have expected that all controversies were at an end; and as the essence of Wealth is Exchangeability, the Science of Wealth can be nothing else than the Science of Exchanges.

Reading, however, a little further on, we come to this passage—'*The Production of Wealth: the extraction of the instruments of human subsistence and enjoyment from the materials of the globe.*' In this passage Mill has completely changed his fundamental conception of Wealth. Here he makes Wealth to be merely the instrument of human enjoyment and subsistence, and all to be extracted from the materials of the globe; and the Quality of Exchangeability has totally disappeared. These two passages are in complete contradiction to each other; and we are once more plunged into Physiocracy, from which we had hoped to have been delivered.

A little further on we find still more confusion. In his chapter on Unproductive Labour, Mill is recalled to the meaning of Wealth. He says that Productive Labour is Labour Productive of Wealth; and, having omitted to settle the meaning

of the word Wealth clearly at the outset, he is now compelled to examine its meaning.

He says that utilities produced by Labour are of three kinds—1st, utilities embodied in outward objects ; 2nd, utilities embodied in human beings ; 3rd, utilities not embodied in any object, but consisting in a mere service rendered, a pleasure given, an inconvenience or a pain averted—*i.e.* all Labour or services. He then says that utilities of the third class, which consist only in services which only exist while being performed, cannot be spoken of as **Wealth**, except by an acknowledged metaphor. *It is essential to the idea of Wealth to be susceptible of accumulation.*

This doctrine is clearly contradictory to his fundamental definition. Labour has purchasing power ; it is bought and sold for money, and therefore it is Wealth by his own definition. But Mill has now introduced a new limitation into his conception of Wealth, namely, *susceptibility of accumulation* ; and he denies that Labour is Wealth because it perishes in the use.

In the same page we are thrown into more perplexity. He says : 'I should prefer, were I constructing a new technical language, to make the distinction turn on the Permanence rather than upon the Materiality of the product.' This doctrine is a violation of one of the fundamental principles of Natural Philosophy—the *Law of Continuity*. Things are of all degrees of Permanence, from the land which lasts for ever to things with a constantly diminishing degree of permanence—such as houses, watches, clothes, food, &c.—down to labour, which has the least degree of permanence, or which perishes in the using ; all of these things can also be exchanged various numbers of times, down to labour, which can only be exchanged once. Now at what degree of permanence, and at what number of exchanges, are we to draw the line between Wealth and Not-Wealth ? Mill gives us not the least clue. Now the *Law of Continuity* says, 'That which is true up to the Limit is true at the Limit.' Now the lowest Limit of Exchange is one, and the lowest Degree of Permanence is that which perishes in the act of exchange. These are what Bacon calls instances of Ultimity, or Limit. Labour is only capable of one exchange, and it only exists during the act of performance. But it possesses the Quality of

Exchangeability, or the capability of being bought and sold ; and, therefore, by the fundamental law of Natural Philosophy, it is necessarily included under the title of Wealth. The question involved is no slight one, nor a piece of mere logomachy ; it is simply whether Labour is to be considered as an Economic Quantity, and subject to the general Laws of Value.

On the very same page he says, ' I shall, therefore, in this treatise, when speaking of Wealth, understand by it only what is called **Material** Wealth.' But on the very same page he says, ' The skill and energy and perseverance of the artisans of a country are reckoned part of its Wealth, no less than their tools and machinery.' And why are not also the skill, energy, and perseverance of the lawyers, doctors, engineers, and all other professional men equally part of the Wealth of a country ? Also he says, ' acquired capacities which exist only as a means, and have been called into existence by labour, fall rightly, as it seems to me, within that designation.' So far we have seen Mill's doctrine with respect to Labour.

9. We must now still further examine his doctrines. We have seen that he says that Wealth is anything which has *Purchasing Power*. He says, ' *Credit*, though it is not productive power, is *Purchasing Power*.' . . . ' The *Credit* which we are now called upon to consider as a distinct *Purchasing Power*.'

Again : ' The amount of **Purchasing Power** which a person can exercise is composed of all the money in his possession, or due to him (i.e. Bank Notes and Bills of Exchange) and of all his **Credit**.' . . . ' Credit, in short, has exactly the same Purchasing Power with money ' ; and numerous other passages to the same effect.

Now if Mill says that Wealth is *anything* that has Purchasing Power.

And if Mill says that Credit is Purchasing Power, then Credit is Wealth.

That is a syllogism from which there is no escape.

Again, Mill expressly designates Bank Notes and Bills of Exchange as Credit.

And he expressly calls Bank Notes by the name of Productive Capital.



Therefore Credit is Productive Capital.

That is a syllogism from which there is no escape.

But how is Credit extracted from the materials of the globe?

When Mill says that everyone has a sufficiently clear idea of what Wealth is for practical purposes, we ask—has he any clear idea himself what Wealth is?

These utter self-contradictions on the very term which is the basis of the science, found in the work of a logician who so carefully inculcates the necessity of clearness and accuracy in obtaining fundamental conceptions, can only fill a student with amazement.

Can such things be,  
And overcome us like a summer's cloud  
Without our special wonder?

We shall say no more here of Mill's special self-contradictions on the subject of Credit, because the matter is of so great importance that it requires a separate discussion.

#### *Defect of the Second School of Economists*

**10.** We have now shown that the whole of the second school of Economists recognise and admit the existence of the three orders of Economic Quantities. The first school only admitting the material products of the earth to be Wealth, only considered that class of Quantities. The second school, admitting Labour to be an exchangeable commodity, have bestowed great attention to the subject of Wages as the price of Labour: and it is on this subject that they have chiefly extended the science.

The great defect of the second school of Economists is with respect to the third order of Economic Quantities, namely, **Rights.** Smith, Say, and Mill all include Bank Notes, Bills of Exchange, &c., under the title of Circulating Capital. But Bank Notes, Bills of Exchange, &c., are merely circulating Rights of action, and are what are called Credit or Debts. Thus the whole of the second school expressly include Credit under the title of Capital.

But while they all admit these Rights of action to be Circulating Capital, they never made the slightest attempt to under-

stand or to explain the mechanism of the great commerce in Debts. The most colossal separate Property in this country, next after the Land, consists exclusively in these abstract Rights of action, or Debts : and by far the most colossal branch of commerce consists in buying and selling Debts : and the exchangeable relations of Debts are governed by the same general Law of Value as the exchangeable relations of material chattels.

Moreover, Bank Notes, Bills of Exchange, &c., which are merely abstract Rights, are only the type and one variety of a gigantic mass of Rights of diverse sorts, which receive different names according to the sources from which they spring. Thus the Funds ; Shares in Commercial Companies : the Goodwill of a business : the Practice of a professional man : Copyrights : Patents : Policies of Insurance : Advowsons : Shootings, &c. &c., are nothing but abstract exchangeable Rights, wholly dis-severed from any material substances.

This class of Property, which was of comparatively small extent when Smith wrote, has, since his time, attained the most gigantic dimensions in this commercial country : it has increased in an immensely greater ratio than material property, and at the present time certainly amounts to many hundreds of thousands of millions of money in this country. Now Mill and his followers expressly adopt the definition of Wealth as anything which has Purchasing Power—anything which can be exchanged—anything which can be bought and sold. All this class of Property can be bought and sold, or exchanged—its Value can be measured in money—it may be bequeathed and donated—some kinds of it are exported and imported between country and country, and act upon the Exchanges exactly in the same manner as material merchandise. It may be traded with and used as Capital, as well as any material merchandise. There are classes of traders who deal exclusively in this class of property, exactly as other traders deal in material commodities. And yet there is not one word about this species of Property—except only Bank Notes and Bills of Exchange—in any of the books of the second school of Economists ! One might read Mill's work without having the slightest idea that such Property existed at all !

At the present day a man might be the richest person in the whole universe, he might have millions in the Funds, in Shares, in commercial companies, and other kinds of Rights : and yet not have one particle of Wealth which could be handled or seen.

*Irremediable Confusion in the Science caused by the Second School of Economists*

**11.** We now see the irremediable confusion into which the science has been thrown by the Second School of Economists introducing Labour and Rights into it while retaining the definition 'Production, Distribution, and Consumption of Wealth,' or some variation of it. For who would understand the meaning of the Production and Consumption of Labour? Who would understand the meaning of the Production and Consumption of Bank Notes, Bills of Exchange, &c., and the whole class of abstract Rights? Whereas all these things are bought and sold : and form the subject of the most colossal commerce in modern times.

The case furnishes the most striking example of Mill's own remarks—'Accordingly, in the case of so complex an aggregation of particulars as are comprehended in anything which can be called a science, the definition we set out with is seldom that which a more extensive knowledge of the subject shows to be most appropriate. Until we know the particulars themselves we cannot fix upon the most correct and compact mode of circumscribing them with a general definition.'

And, again—'Scientific definitions, whether they are definitions of scientific terms or of common terms, used in a scientific sense, are almost always of the kind last spoken of : their main purpose is to serve as the landmark of scientific classification. And since the classifications of any science are continually modified as scientific knowledge advances, the definitions of the sciences are constantly varying.' . . . 'What is true of the definition of any term of science is of course true of the definition of the science itself : and accordingly the definition of a science must necessarily be progressive and provisional.'

These remarks exactly apply to the case in hand. The expression 'Production, Distribution, and Consumption of

Wealth' is only intelligible and was only meant to apply to **one** class of exchangeable Quantities and to **one** class of Exchanges ; while, by the unanimous admission of the writers of the second school of Economists, Labour and Rights are to be included under the term Wealth. But the term Science of Exchanges is applicable to **all** Exchanges of every description : and is in fact the name of a great science as wide and general as Mechanics or Optics. The former name will no more fit the great general science of Commerce than the clothes of an infant will fit a giant. And, therefore, by Mill's own remarks, the Science of Exchanges is the only definition which fits the Science of Economics in its widest extent.

*On the Confusion of Smith and Ricardo on the subject of Value*

**12.** We have now to direct the student's attention to the irretrievable confusion in Economics caused by Smith's and Ricardo's self-contradictions on Value.

From the earliest antiquity every writer has seen that the Value of a thing is something else external to itself, for which it can be exchanged.

So in Book i., Ch. v., Smith begins by saying that the Value of any commodity is equal to the Quantity of Labour which it enables him to command or purchase. Hence, if *l* denotes labour,

$$A = l, 2l, 3l, 4l \dots$$

He then says in the next paragraph that is the same thing as saying that it is equal to the Produce of labour it enables him to purchase : or, denoting produce by *p*, we have

$$A = p, 2p, 3p, 4p \dots$$

And in the next paragraph he says that the Value of anything is more frequently estimated in Money than either in labour or commodities : or, denoting Money by *m*,

$$A = m, 2m, 3m, 4m \dots$$

Now, though it has been pointed out that these modes of estimating the Value of a quantity are by no means identical, we observe that in this passage Smith defines the Value of a thing

to be something external to itself. The Value of a thing is some *other* thing for which it can be exchanged. Hence it is manifest that the Value of A must vary directly as *l*, *p*, or *m*. The greater the Quantity of *l*, *p*, or *m* that can be got for A, the more valuable is A : the less of *l*, *p*, or *m* that can be got for A, the less valuable is A. It is also perfectly clear that if any change whatever takes place in the exchangeable relations between A and these Quantities, the Value of A has changed.

Hence Smith admits that Value, like distance, requires two objects : if any change takes place in the position of either of these, the distance between them has changed : no matter in which the change has taken place. So if the exchangeable relation between two Quantities changes, their value has changed, no matter in which the change takes place.

Hence it is clear that there can be no such thing as **Invariable Value**. Nothing whatever can by any possibility have an Invariable Value unless the relations of all other things are fixed also.

Hence we can at once see that by the very nature of things there can be no such thing as an Invariable Standard of Value by which to measure the variations in value of other things, because, by the very nature of things, the very condition of anything being invariable in value is that nothing else shall vary in value : and consequently the very condition of there being an invariable standard is that there shall be no variation to measure.

Nevertheless, a very large body of Economists have set out upon this wild-goose chase—this search after an Invariable Standard—which it is utterly contrary to the nature of things should exist at all.

Directly after the passages we have referred to, Smith commences the search for that single thing which is to be the Invariable Standard of Value.

He says that gold and silver will not do because they vary in their value—sometimes they can purchase more and sometimes less labour and other commodities. Then he says—'But as a measure of quantity such as the natural foot, fathom, or handful, which is constantly varying its own quantity, can never be an accurate measure of the quantity of other things, so a commodity which is itself continually *varying in its own value*

can never be an accurate measure of the value of other commodities. *Equal Quantities of Labour, at all times and places, may be said to be of equal value to the labourer.* In his ordinary state of health, strength, and spirits, in the ordinary degree of his skill and dexterity, he must always lay down the same portion of his ease, his liberty, his happiness. *The price which he pays must always be the same, whatever the quantity of goods which he receives in return for it [which, by Smith's own definition, is the Value of his labour].* Of these, indeed, it may sometimes purchase a greater and sometimes a smaller quantity, *but it is their Value which varies, not that of the labour which purchases them.* At all times and places that is dear which is difficult to come at, or which costs much labour to acquire; and that cheap which is to be had easily, or with very little labour. *Labour alone, therefore, never varying in its own value, is alone the ultimate and real standard by which the value of all commodities can at all times be estimated and compared.* It is their real price: money is their nominal price only.

*'But though equal Quantities of Labour are always of equal value to the labourer (!!), yet to the person who employs him they appear sometimes to be of greater and sometimes of smaller value. . . .*

*'Labour, therefore, it appears evidently, is the only universal, as well as the only accurate, measure of value, or the only standard by which we can compare the value of different commodities at all times and places.'*

**13.** The utter confusion of ideas in these passages is manifest. A foot or a fathom is an absolute quantity, and of course may increase or decrease by itself: but Value, by Smith's own definition, is a **Ratio**: and therefore we might just as well say that because a foot, which is varying in its own length, cannot be an accurate measure of the length of other things; therefore a quantity which is always varying its own *Ratio* cannot be an accurate measure of the *Ratio* of other things. The utter confusion of ideas as to the whole nature of the thing is manifest. We may measure a tree with a yard, because they are each of them single quantities: *but it is impossible that a Single Quantity can measure a Ratio.* It is manifestly impossible to say

$$a : b :: x.$$

It is manifestly absurd to say that 4 is to 5 as 8 : without saying as 8 is to what : just as it is absurd to say that a horse gallops at the rate of 20 miles : without saying in what time.

Smith says that—' Equal quantities of labour are always of equal value to the labourer.'

Now, by his own definition, the Value of a thing is what can be got in exchange for it ; consequently, if ' equal quantities are always of equal value to the labourer,' a man's labour must be of the same value to him whether he gets £100 for it, or £50, or £10, or nothing at all !

The contradiction of ideas in this chapter of Smith's is palpable. He first defines the value of A to be the quantity of things it will purchase, and therefore, of course, varying directly as that quantity : and then he suddenly changes the conception of value to be the quantity of labour in obtaining A : and says that the Value of A is invariable so long as it is produced by the same quantity of labour ! and that its Value is the same whatever quantity of other things it will purchase !

The word Value has been so misused by Economical writers that it will be well to illustrate it by the use of another word of similar import whose meaning has not been so misused.

Value, like Distance, requires two objects, and we may present Smith's ideas in this form.

' As a measure of quantity, such as a foot, which is always varying its own length, can never be an accurate measure of the length of other things, so an object which is always varying its own *distance* can never be an accurate measure of the *distance* of other objects. But the Sun is always at the same *distance*. And though the earth is sometimes nearer the sun, and sometimes further off from it, the sun is always at the same *distance*. And though the earth is at different distances from the sun, it is the *distance* of the earth which has varied, and not that of the sun : and the sun alone, never varying its own distance, is the ultimate and real standard by which the distances of all things can at all times and places be estimated and compared.'

Such is a fair translation of Smith's ideas, merely substituting *Distance* for *Value*. No wonder that Francis Horner says—' We have been under the necessity of suspending our progress in

the perusal of the *Wealth of Nations* on account of the insurmountable difficulties, obscurity, and embarrassment in which the reasonings of the fifth chapter are involved.'

But after saying that a thing produced by the same quantity of labour is always of the same value, no matter what it may exchange for: he says, speaking of Money in a subsequent passage, if it could be exchanged for nothing, it would be of no more value than the most useless piece of paper!

So, after all, Smith came back to Exchangeability as the test of value, and this confusion runs through the whole of Smith. One half the work is based upon Labour as the foundation of value: and the other half upon Exchangeability.

**14.** Exactly the same confusion runs through the whole of Ricardo.

He begins by saying—'The Value of a commodity, or the quantity of any other commodity for which it will exchange, depends on the relative quantity of labour which is necessary for its production.'

So again—'In the early stages of society the exchangeable value of these commodities is the rule which determines how much of one shall be given in exchange for another.'

But a little further on he calls the quantity of labour bestowed on a commodity 'under many circumstances an invariable standard indicating correctly the variations of other things.'

Ricardo then starts on the search for the Invariable Standard of Value which should itself be subject to none of the fluctuations to which other commodities are exposed. He says that it is impossible to be possessed of such a measure, because there is no commodity which is not subject to require more or less labour for its production.

Afterwards he says—'If equal quantities of labour, with equal quantities of fixed capital, could at all times obtain from that mine which paid no rent equal quantities of gold, gold would be as nearly an invariable measure of value as we could in the nature of things possess. The quantity would indeed enlarge with the demand, but its value would be invariable, and it would be eminently well calculated to measure the varying value of all other things.'



In a subsequent part of his work he says—'The labour of a million of men in manufactures will always produce the same value. . . . That commodity is alone invariable which at all times requires the same sacrifice of toil and labour to produce it.'

That is, Ricardo says that the value of manufactures is always the same, whether they sell for £100, for £5, or for nothing!

Which is just as rational as to say that a Railway Station, because it does not move, is always at the same distance from trains which are flying to or away from it! That the distance from B to A is always changing, but the distance from A to B is invariable!

And, after beginning by defining and several times repeating that the value of a thing is some *other* thing it will exchange for, he ends by saying—'I cannot agree with M. Say in estimating the value of a commodity by the abundance of other commodities for which it will exchange.'

Ricardo, therefore, begins by defining the value of a thing to be something external to it; and then he ends by describing it to mean the cost of production or quantity of labour bestowed on obtaining it. The very first day that Bentham read the book he wrote to Ricardo to tell him that it was all founded on the confusion between **Cost** and **Value**.

**15.** We have now to show the consequence into which Ricardo is led.

He says—'In contradiction to the opinion of Adam Smith, M. Say, in the fourth chapter, speaks of the value which is given to commodities by natural agents, such as the air, the sun, the pressure of the atmosphere, and which are sometimes substituted for the labour of man and sometimes concur with him in producing. But these natural agents, though they add greatly to *value in use*, never add exchangeable value to a commodity . . . . and they are serviceable to us by increasing the abundance of productions, by making men richer, by adding to value in use; but as they perform their work gratuitously—as nothing is paid for the use of the air, of heat, and of water, the

assistance which they afford to us *adds nothing to Value in Exchange* ! !

Now, when logical reasoning from certain premisses leads to results which are notoriously false and contrary to experience and fact, it is perfectly certain that these premisses must be erroneous. Nothing more is required to show the utter fallacy of the doctrine that human labour is the cause of all value than to consider the consequences it logically leads to.

If a man plants an acorn, the full-grown oak tree, according to Ricardo, ought to be of no more value than the acorn, because human labour stops there ; the rest is the agency of nature.

According to this doctrine, cattle and fowls ought to have no value at all : because no human labour ever made an animal nor ever laid an egg.

According to Ricardo the value of the harvest reaped should be no greater than the cost of the seed corn, the ploughing and labouring the ground, and reaping the crop : because human labour ends there : the rest is the agency of nature.

According to Ricardo, the fertilising showers, and the warmth of the sun, add nothing to the value of the crops ; therefore, by the same doctrine, the want of a due amount of rain, or an absolute drought, and the total absence of sunshine, would detract nothing from its value !

The very statement of such doctrines is their refutation, and shows the fallacy of that system of Economics which is built on them.

#### *On the Self-contradiction of Say and Mill on Credit*

**16.** We must now show the self-contradiction of two eminent writers on the subject of Credit, which has caused great confusion in the science.

We have shown in a former chapter that ancient jurists unanimously classed abstract Rights of action under the terms *Pecunia, Res, Bona, Merx, χρήματα, πράγματα, αγαθα*, &c., because they can be bought and sold like material chattels. These Rights of action are what are called Credit or Debts. Mercantile writers, seeing that Commerce is carried on by means of these Rights of action exactly in the same way as with Money, said that

Credit is Capital, without giving any very nice definition either of Credit or Capital. Smith classes Bank Notes and Bills of Exchange under the title of Circulating Capital.

In recent times the most unsparing ridicule has been poured on the doctrine that Credit is Capital. J. B. Say is supposed to have shown that those who say that Credit is Capital assert that the same thing can be in two places at once. Mill also points a sneer at those who say that Credit is Capital. We shall now show that both these writers have said repeatedly that Credit is Capital; and that all the confusion on the subject has arisen from their own self-contradictions: because they form different conceptions of what Credit is in different parts of their works.

*On the Self-Contradiction of J. B. Say on Credit*

17. We have already shown that Say expressly classes Instruments of Credit (*titres de créance*), i.e. Credit, under the term Wealth.

He also says—'If one gives also the name of **Wealth** to the Funds, Commercial Paper (*Effets de commerce*), it is clear, &c.'

'The **Wealth** which resides in anything, whether it be land, a horse, or a *Bill of Exchange*, is proportioned to its Value. When we speak of things being Wealth, we do not speak of other qualities which they can have: we only speak of their Value.'

Thus Say makes the principle of Wealth to reside exclusively in Exchangeability: and he expressly classes *titres de créance* and *effets de commerce*, that is, Negotiable Paper, or Credit, under the term **Wealth**.

And he also classes them under the title of Capital. 'These **Capital** Values may consist of the Public Funds, Commercial Paper, coffee-berries, or any other merchandise he will sell.'

Speaking of Commercial Paper, he says—'A Bill on demand, or a Bill of Exchange, are obligations contracted to pay, or cause to be paid, a sum either at another time or in another place.'

'The Right attached to this order (although its value is not demandable at the time or the place where one is) gives it

nevertheless a **Present Value** more or less great. Thus, a bill for 100 francs, payable at Paris in two months, may be negotiated or sold for the price of 99 francs : a bill for a similar sum, payable at Marseilles at the same time, will be worth in Paris perhaps 98 francs.

‘ Hence a Bill of Exchange, by virtue of its future value, has a **Present Value** : it can be employed instead of money in every species of purchase : so that the greater part of the great commercial transactions are effected by Bills of Exchange.’

Again, he says—‘ There is, nevertheless, an important observation to make relating to the representative signs of money. It is that they are capable of rendering a service exactly similar to the money they represent. If any one signs an obligation by which he binds himself to deliver at a fixed period a cloak made in such a fashion, this promise, although it is in some sort a sign or pledge of the possession of the cloak, cannot take its place : because a sheet of paper does not protect from cold like a cloak : whilst the signs which represent money can replace it completely, and render all the services which it can. In fact, the qualities which make a bag of money serve us in exchange can be found in a bill. These qualities, you will remember, are—

‘ First, in the Value which it has. One can give a Bill exactly the same value as to a sum of money : in giving the bearer the Right to receive the sum, so as to take away from him all doubt as to the payment : it is thus that a bank note can circulate ten years in preserving a value of a thousand francs without being paid, only because one believes that it will be the moment he pleases.’

In these passages Say clearly shows that Bank Notes, and Bills of Exchange, &c., have Value. He now shows that they are Capital. He says—‘ Every private person can sign an ordinary bill, and give it in payment of merchandise, provided that the seller consents to receive it as if it were money. This seller in his turn, if he is the buyer of other merchandise, can give the same bill in payment. The second acquirer can pass it to a third with the same object. There is an Obligation which circulates : it serves him who wishes to sell : it serves him who wishes to buy : it does the duty of a sum of money.



‘The Value of a sign depends on the Value of the thing signified : but in order that this Value may be exactly as great as that of the thing of which it is the pledge, the payment of the bill must not only be certain, but demandable on the instant. . . .

‘If Bills of Credit could replace completely metallic money, it is evident that *a bank of circulation veritably augments the sum of National Wealth* : because in this case the metallic wealth, becoming superfluous as an agent of circulation, and nevertheless preserving its own value, becomes disposable, and can serve other purposes. But how does this substitution take place? What are its limits? What classes of society make their profit of the interest of the **new funds added to the Capital of the nation?**

‘According as a bank issues its notes, and the public consents to receive them on the same footing as metallic money, the number of monetary units increases. . . .

‘We must not, however, think that the value withdrawn from the sum of money and added to the sum of capital-merchandise equals the sum of notes issued. These only represent money when they can always be paid on demand : and for that the bank is obliged to keep in its coffers, and consequently to withdraw from circulation, a certain sum of money. If, suppose, it issues 100 millions of notes, it will withdraw perhaps 40 millions in specie, which it will put in reserve to meet the payments which may be demanded of it. Therefore, if it adds to the quantity of money in circulation 100 millions, and if it withdraws 40 millions from circulation, it is as if it added only 60 millions.

‘We now wish to learn what class of society enjoys the use of this **New Capital.**’

18. We have laid these copious extracts before the student to show him that J. B. Say clearly and unequivocally asserts that Credit is Wealth and Capital.

It is, therefore, somewhat surprising to read in another passage—

‘It is sometimes thought that Credit multiplies Capital. This error, which is found frequently reproduced in a crowd of works, of which some are written professedly on Political Economy, supposes an absolute ignorance of the nature and

function of Capitals. *A Capital is always a very real value fixed in a matter (!) : because immaterial products are not susceptible of accumulation (!), and a material product cannot be in two places at once, and serve two persons at the same time (!)* The constructions, the machines, the provisions, the merchandise which comprise my Capital may be the amount of the value I have borrowed : in this case I carry on my industry with a capital which does not belong to me, and which I hire : but certainly the Capital which I employ is not employed by another. He who lends it to me is debarred from the power of working it elsewhere.'

'The manufacturer who buys on Credit raw materials, borrows from the seller the value of this merchandise for the time of the Credit which he gives him : and this value which he lends him is furnished in merchandise which are material values.

'Hence, if one can only borrow and lend Capital in material objects (!), what becomes of this maxim that Credit multiplies Capitals? My Credit can cause me to dispose of a material value which a capitalist has placed in reserve : but if he lends it to me he remains deprived of it : he cannot lend it to another person at the same time.'

The misconception upon which the whole of this passage is founded is plain : and his self-contradictions on the subject of Capital are also plain. In this passage Say says that Capital is always a real value fixed in a matter! But he himself is the most earnest advocate for introducing immaterial Capital into Economics : and in the former series of extracts he has plainly termed Rights of action Capital, because they circulate in commerce, and perform the functions of money.

As a matter of fact, the Credit is not the merchandise advanced, but the **Right of action** which is created in exchange for it, and this Right of action is termed Capital for the same reason that Money is termed Capital, because the merchant can buy with his promise to pay, and make a profit by so doing, just in the same way as if he purchased with money.



*On the Self-Contradiction of J. S. Mill on Credit*

19. We have now to show Mill's self-contradictions on Credit.

Mill defines Wealth thus—'Everything, therefore, forms a part of **Wealth** which has a **Power of Purchasing**.'

Again, he says—'An order or note of hand, a bill payable at sight for an ounce of gold, while the credit of the giver is unimpaired, is worth neither more nor less than the gold itself.'

Now these instruments are Credit; and consequently Mill says that under certain conditions Credit is of the same Value as Gold; as the Italian proverb says—*Oro è che oro vale*.

Again, he says—'But we have now found that there are other things, such as Bank Notes, Bills of Exchange, and Cheques, which circulate as Money and perform **all** the functions of it.'

Now, one of the functions of Money is to be used as Capital; consequently, if Instruments of Credit perform **all** the functions of Money, they may be used as Capital as well as Money.

Again he says—'For **Credit**, though it is not productive power, is **Purchasing Power**.'

'The Credit which we are now called upon to consider is a distinct **Purchasing Power**, independent of Money.'

'The amount of **Purchasing Power** which a person can exercise is composed of all the Money in his possession, or due to him [*i.e.* of Bank Notes, Bills of Exchange, or Bank Credits], and of all his **Credit**.'

'**Credit**, in short, has exactly the same **Purchasing Power** with Money.'

And many other similar passages might be cited if necessary.

Mill also speaks of Bank Notes, Bills of Exchange, and Cheques as Credit; and he speaks of Credit transferable from hand to hand.

Again he says—'The value saved to the community by thus dispensing with metallic money is a clear gain to those who provide the substitute.'

'When paper currency is supplied, as in our own country,

by bankers and banking companies, the amount is almost wholly turned into **Productive Capital**. . . .

‘A banker’s profession being that of a money lender, his issue of notes is a simple extension of his ordinary occupation. He lends the amount to farmers, manufacturers, or dealers, who employ it in their several businesses. So employed it yields, like any other **Capital**, wages of labour and profits of stock. . . .

‘The **Capital** itself in the long run becomes entirely wages . . . thus affording a perpetual fund of the value of twenty millions for the maintenance of productive labour.’

And several other extracts might be cited, but these are sufficient.

Now, if Mill says that **Wealth** is anything which has **Purchasing Power** ;

And if he says that **Credit** is **Purchasing Power** ;

And if he says that Bank Notes, Bills of Exchange, and Cheques are **Credit** ;

And if he says that Bank Notes, Bills of Exchange, and Cheques perform **all** the functions of Money, one of which is to be used as Capital ;

And if he says that Bank Notes are **Productive Capital** ;

Then **Credit** is **Productive Capital**.

That is a Sorites from which there is no escape.

Nevertheless, Mill sneers at those who say that Credit is Capital.

He says—‘The functions of Credit have been a subject of as much misunderstanding and as much confusion of ideas as any single topic in Political Economy. . . .

‘As a specimen of the confused notions entertained respecting the nature of Credit, we may advert to the exaggerated language so often used respecting its national importance. Credit has a great, but not, as many people seem to suppose, a magical power : it cannot make something out of nothing. How often is an extension of Credit talked of as equivalent to a creation of Capital, or as if Credit actually were Capital ! [Who has said more distinctly than Mill himself that Credit is Capital ?] It seems strange to point out that *Credit, being only per-*



*mission to use the Capital of another person, the means of production cannot be increased by it, but only transferred.'*

'But, though Credit is but a Transfer of Capital from hand to hand.'

The self-contradiction in these passages is manifest. In the first series of extracts he sees that **Credit** is the **Purchasing Power**, the **Right of action** which is given in exchange for the merchandise, and he sees that it circulates as money, transferable from hand to hand, and performs all the functions of money; and then he expressly calls it **Productive Capital**.

In the second series he considers Credit to be the **Transfer** of Capital from one person to another, and then he sneers at those who say that Credit is Capital; and at the confusion of ideas which prevails on the subject.

Now, we ask—Is a Bank Note the **Transfer** of a commodity? Is a Guinea the *sale* of a book? Is an independent Property of any sort an operation?

After this exposition, it appears that Mill is not exactly the person to sneer at others for their confused notions about Credit: nor does it seem that he has himself any very clear ideas as to what Wealth is.

**20.** There is no method so effectual for exterminating false conceptions as bringing them into sharp and close contrast with true ones. The student must carefully observe that—

Credit is **not** the goods lent.

Credit is **not** the transfer of goods.

Credit is **not** a right to any specific goods or money.

Credit, in popular language, is the reputation which a person has, in consequence of which he can buy goods or borrow money by giving in exchange for them a Promise to pay at a future time: and it is this Promise to pay, or Right of action, which in Law, Commerce, and Economics is termed a Credit: and this Credit can circulate in commerce and effect exchanges exactly in the same way as money until it is paid off and extinguished.

We have given these examples of the self-contradiction and confusion of ideas of the writers of the second school of Economics on three of the Fundamental Conceptions of the science.

It would be far too long in this outline to examine their self-contradictions on the others : but they would be found on examination to be exactly similar.

*On the Fundamental Objection to the Smith-Ricardo-Mill  
System of Economics*

**21.** In the preceding criticisms we have shown the self-contradiction and confusion of ideas of Smith, Ricardo, Say, and Mill on certain of the Fundamental Conceptions of Economics : we have now to point out the fundamental objections to their System as a whole.

We have shown that Mill himself acknowledges that the only way of advancing Economics is to treat it strictly after the method of a Physical Science.

Taking Astronomy and Optics as typical examples of a Physical Science, the purport of the science is to discover a single General Theory which governs **all** the phenomena : and there can be only **one** General Theory. It would be utterly contrary to the fundamental nature of a Physical Science to suppose that every distinct class of phenomena was based upon a distinct fundamental Theory.

Both in Astronomy and Optics different fundamental Theories have been held at various times : but no one ever supposed that more than one theory could be true : no one ever dreamt of writing a treatise on Astronomy in which one chapter was based upon the Ptolemaic Theory : another chapter on the Theory of Tycho Brahe : and another chapter on the Theory of Copernicus.

No one would ever dream of writing a Treatise on Optics in which one class of phenomena were explained by the Corpuscular Theory of Light : and another set of phenomena by the Undulatory Theory.

If, then, Economics is a Physical Science, and to be treated after the method of a Physical Science, it is the essential condition of its being so that all the phenomena in it should be reduced to one grand General Theory. Economics is simply a new order of Variable Quantities : and consequently it must be subject to the Grand General Theory of Variable Quantities in general.

Smith wrote before the days when the principles of scientific method were understood. He never even conceived the idea of reducing the explanation of phenomena to a single general principle. He writes in what is supposed to be a popular style : catching at any theory which seems to give a plausible explanation of a phenomenon. The consequence is that his work is a mass of contradictory assertions and doctrines ; and of course, among so many contradictions, it must in some cases be right.

**22.** Ricardo was the first writer in this country who conceived the idea of reducing Economic phenomena to general principles. But, unfortunately, his system is utterly contrary to the fundamental principles of Natural Philosophy.

He divided commodities into three classes—

First—Those in which the Supply is absolutely limited, and cannot be increased by human labour : and therefore their value cannot be lowered by an increased supply.—‘ Some rare statues and pictures, scarce books and coins, wines of a peculiar quality, which can only be made from grapes grown on a particular soil of which there is a very limited quantity, are all of this description. Their value is wholly independent of the quantity of labour originally necessary to produce them, and varies with the varying wealth and inclination of those who are desirous to possess them.’

Ricardo says that the Value of such commodities is exclusively governed by the Law of Supply and Demand.

And among this class of commodities both he and Mill include Labour.

Secondly—Those commodities which can be increased at will by human labour without assignable limit : and the purport of his work is to investigate the value of this class of commodities only : though this express limitation of his inquiry is entirely overlooked by his ardent disciples.

Ricardo says that commodities which can be increased without limit by human industry are divided into two classes—

1. Those which can be increased to any extent required by human labour at an equal cost of production. Of these he says—

‘ It is Cost of Production which must ultimately regulate the

price of commodities, and not, as has often been said, the proportion between Supply and Demand : the proportion between Supply and Demand may indeed for a time affect the market value of a commodity, until it is supplied in greater or less abundance, according as the demand may have increased or diminished ; but this effect will only be of temporary duration.

‘ The opinion that the price of commodities depends solely on the proportion of Supply to Demand, or Demand to Supply, has become almost an axiom in Political Economy, and has been the source of much error in that science.’

He then quotes the Law given in a subsequent chapter, and says—‘ This is true of monopolised commodities, and, indeed, of the market price of all other commodities for a limited period.’

‘ Commodities which are monopolised, either by an individual or by a company, vary according to the Law which Lord Lauderdale has laid down ; . . . and the prices of commodities which are subject to competition, and whose quantity may be increased in any moderate degree, will ultimately depend, not on the state of Demand and Supply, but on the increased or diminished Cost of their Production.’

2. Those commodities which can be increased in quantity at will, but *not* by equal Cost of Production, like corn and minerals. An increased quantity of corn can always be procured, but the increased quantity is always obtained at an increased cost. In this class of commodities Ricardo says that the cost of obtaining the last quantity produced, regulates the price of the whole quantity purchased or consumed.

Mill has adopted Ricardo’s system in its entirety ; but the slightest reflection will show that there are many other classes of commodities besides those mentioned by Ricardo.

Mill accordingly says that it is necessary to take notice of certain cases to which, from their peculiar nature, this Law of Value is inapplicable. As, for example, the case of two different commodities having a joint cost of production, being both products of the same operation ; and the same outlay would have to be incurred for either of the two if the other were not wanted at all. As, for instance, gas and coke are both produced from the same material, and by the same operation ; so also mutton

and wool ; beef, hides, and tallow ; calves and dairy produce ; chickens and eggs. 'Cost of production,' he says, 'can have nothing to do with deciding the value of the associated commodities relatively to each other ; it only decides their joint value. The gas and the coke together have to repay the expenses of their production with their ordinary profit.' But how much of the remuneration of the producer shall be derived from the coke, and how much from the gas, remains to be decided. Cost of production does not determine their prices, but the sum of their prices. A principle is wanting to apportion the expenses of production between the two.

'Since Cost of Production here fails us, we must revert to a *Law of Value anterior to Cost of Production, and more fundamental, the Law of Supply and Demand.*'

So here Mill acknowledges that the Law of Supply and Demand is more fundamental than that of Cost of Production, which at once annihilates the false distinction, made by Ricardo and adopted by Mill, between the two classes of cases.

A little further on Mill says—'This theorem is not of any great importance ; but the illustration it affords of the Law of Demand, *and of the mode in which, when Cost of Production fails to be applicable, the other principle steps in to supply the vacancy (! !)*, is worthy of particular attention, as we shall find, in the next chapter but one, that something very similar takes place in cases of much greater moment.'

This mode of arguing in Economics is just as rational and as admissible as it would be in Astronomy to say, 'In this class of cases the Ptolemaic Theory fails us, and we must adopt the other, or Copernican Theory, to supply the vacancy ;' or in Optics to say, 'In this class of cases the Corpuscular Theory fails us, and we must adopt the Wave Theory to fill the vacancy.' The obvious analogy of Natural Philosophy shows that if a theory fails in any one case whatever, it fails in all.

In speaking of agricultural produce Mill says—'There would be little difficulty in finding *other anomalous cases of Value*, which it might be a useful exercise to resolve.'

He afterwards says—'This, then, is the Law of Value, with respect to all commodities not susceptible of being multiplied at pleasure. Such commodities are no doubt exceptions. There

is *another Law* (!) for that much larger class of things which admit of indefinite multiplication. But it is not the less necessary to conceive distinctly and grasp firmly *the Theory of these exceptional Cases* (!!). In the first place it will be found to be of great assistance in rendering the common case more intelligible. And in the next place the principle of the exception stretches wider, and embraces more cases than might at first be supposed.'

Now this Law which Mill treats as accounting for this exceptional case, by his own admission, governs the Value of Labour—the Rate of Discount—the relation between Money and Credit—the whole Foreign Trade of the country—and the value of all other commodities at any particular time. He afterwards considers some 'peculiar cases' of Value. Now if, according to Mill, the whole phenomena of Economics are made up of 'Exceptional Cases,' 'Peculiar Cases,' and 'Anomalous Cases,' what remains for the general body of the science? Absolutely nothing!

Ricardo and Mill break up Economic phenomena into a number of distinct classes of cases, and they assert that for each distinct class of phenomena there is a distinct Law of Value. Now, if each class of Economic Quantities has a different Cause of Value, how is it possible to have any Fundamental General Conception? and if each distinct class of phenomena has a distinct Fundamental Law of Value, how is it possible to have any General Theory of Value? The method followed by Ricardo and Mill entirely destroys the power of **Generalising** in Economics, and such a mode of treating a Physical Science would drive any Physical Philosopher frantic.

**23.** It is impossible to imagine a more glaring instance of the violation of the *Law of Continuity*, and of the *Continuity of Science*, than Mill's Theory of Foreign Trade. He says—'Does the Law that permanent value is proportional to Cost of Production hold good between commodities produced in *distant* places, as it does between those produced in *adjacent* places? We shall find that it does not.'

Again—'The value of commodities produced at the *same* place, or in places sufficiently *adjacent* for capital to move

freely between them—let us say for simplicity, of commodities produced in the same country—depends (temporary fluctuations apart) upon their cost of production. But the value of a commodity brought from a *distant* place, especially from a foreign country, does not depend on its cost of production, or the place from whence it comes; on what, then, does it depend? The value of a thing in any place depends on the *cost of its acquisition* in that place, which, in the case of an imported article, means the cost of production of the thing which is expected to pay for it.'

Now here is an obvious fundamental fallacy. Mill says that if cotton goods to the value of 50*l.* are exported, and wine is imported in exchange for them, which is worth 100*l.* in the importing country, the value of the wine to that country is 50*l.* ! It is obvious that this is to confound the Cost of a thing with its Value.

This is exactly as absurd as to say that if a man expends 1*l.* on producing an article which he can sell for 5*l.*, the Value of the article to him is 1*l.* !

Mill then says—'The value, then, in any country, of a foreign commodity depends on the *quantity of home produce* (!) which must be given to the foreign country in exchange for it. In other words, the values of foreign commodities depend on the terms of international exchange. What, then, do these depend upon? What is it which, in the case supposed, causes a pipe of wine from Spain to be exchanged with England for exactly that quantity of cloth?' *We have seen that it is not their cost of production.* If the cloth and the wine were both made in Spain, they would exchange at their Cost of Production in Spain; if they were both made in England they would exchange at their Cost of Production in England; but all the cloth being made in England, and all the wine in Spain, they are in circumstances to which we have already determined that the Law of Cost of Production is not applicable. *We must accordingly, as we have done before in a similar embarrassment, fall back upon an antecedent law, that of Supply and Demand, and in this we shall again find the solution of our difficulty.'*

Mill's doctrine, therefore, is that in the exchange of commodities between adjacent places, and in those of the same country,

the law of Value is *Cost of Production* : but that in the exchange of commodities between distant places and foreign countries, the law of Value is that of *Supply and Demand*.

To examine this doctrine properly we must separate the cases : because distant places need not be foreign places : and foreign places need not be distant places.

London and Melbourne are *distant* places, but they are not *foreign* places : Lille and Ghent are *foreign* places, but they are not *distant* places.

Mill affirms that the Law which governs the value of commodities exchanged between *adjacent* places is fundamentally different from the Law of Value of commodities exchanged between *distant* places. He says that if commodities are exchanged between London and Southwark their Value is governed by *Cost of Production* : but if they are exchanged between London and Melbourne their Value is governed by *Supply and Demand*.

Now, if this doctrine be true, there must be some precise spot between Southwark and Melbourne at which the Law of Cost of Production changes into that of Supply and Demand. Where is this spot? Is it in the chops of the Channel? Is it at the Equator? Is it at the Cape of Good Hope?

If Mill's doctrine is true, let us gradually and continuously increase the distance between the adjacent places until they become distant to each other : and at this particular spot the Law of Cost of Production suddenly and violently changes into that of Supply and Demand. Let us suppose that a ship passes from one place to the other : and that at a particular time the centre of the ship is exactly at this spot : then, according to this doctrine, the Law of Value in the stern of the ship will be that of Cost of Production : the Law of Value in the bows of the ship will be that of Supply and Demand !!

**24.** But Mill says that the Law of Value of commodities exchanged in the *same* country is Cost of Production : of those exchanged between *foreign* countries is that of Supply and Demand.

Now, London and Melbourne, and St. Petersburg and Kamschatka, are in the same country : therefore, according to Mill,



the Law of Value between them is that of *Cost of Production*.

But they are *distant* places ; therefore, according to the same Mill, the Law of Value between them is that of *Supply and Demand* !

Lille and Ghent are *adjacent* places ; therefore, according to Mill, the Law of Value between them is that of *Cost of Production*.

But they are *foreign* places : and, therefore, according to the same Mill, the Law of Value between them is that of *Supply and Demand* !

Again, places that are at one time foreign to each other may, by the union of the two countries, become of the same country. England and Scotland were once foreign to each other : but by the Union they became one country.

According to Mill, while they were foreign countries the Law of Value between them was that of Supply and Demand : when they became one country the Law of Value between them became that of Cost of Production.

So that on the very day and instant at which the Act of Union came into effect the Law of Value between the two countries underwent a sudden and fundamental change ! Certainly this was an effect of the Union which no one ever suspected before.

Until very recently Italy was divided into a number of separate *Statés*, which were foreign to each other : and therefore the Value of Commodities was governed by the Law of Supply and Demand. Italy is now, happily, united and become one country : and consequently Values are governed by the Law of Cost of Production ! That is to say, the unification of Italy has produced a fundamental change in the Laws of Value ! It would be just as rational to say that the unification of Italy has produced a fundamental change in the Law of Gravity : or in the principles of Astronomy : or in the laws of Optics.

The slightest consideration will show that such fantastic notions cannot be received as sound philosophy.

**25.** Having thus shown the unphilosophical basis of Mill's *Theory of International Values and International Trade*, we

need not examine them any more, nor his alleged 'Equation of International Demand.' Such things cannot be fundamental Laws of Economics, because it is a mere *accident* that countries are foreign to each other. When countries coalesce and become one, what becomes of International Values, and International Trade, and the Equation of International Demand? They simply collapse and vanish into nothing, and with them the Ricardo-Mill system of Economics.

It has long ago been observed that for the purpose of trade the whole earth is one nation, and that the Laws of Value must be the same in all places, in all times, and between all places, adjacent or near, home or foreign.

*Self-Contradiction of Smith on Rent.*

26. We have shown Smith's self-contradictions on some of the fundamental terms of the science ; but he is not only self-contradictory on fundamental conceptions, but also on doctrines. We can only notice one of these here, which gave rise to the celebrated controversy about Rent.

In discussing the prices of commodities in one set of passages he asserts that the payment of Rent raises the price of corn.

He says : ' In the price of corn one part pays the Rent to the landlord, another pays the wages, or maintenance of the labourers and labouring cattle employed in producing it, and the third pays the profit of the farmer. These three parts seem either immediately or ultimately to make up the whole price of corn.'

Again : ' Wages, Profit, and Rent are the three original sources of all revenue, as well as of all exchangeable value.'

Again : ' As in a civilised country there are but few commodities of which the exchangeable value rises from labour only, Rent and Profit contributing largely to that of the far greater part of them.'

' Again he says that there is in every society or neighbourhood an ordinary or average rate of wages, profit, and also of rent, the latter regulated partly by the general circumstances of the society or neighbourhood on which the land is situated, and partly by the natural or improved fertility of the land.'

‘These ordinary or average rates may be called the natural rates of wages, profit, and rent at the time and place at which they commonly prevail.’

‘When the price of any commodity is neither more nor less than what is sufficient to pay the rent of the land, the wages of the labourer, and the profits of the stock employed in raising, preparing, and bringing it to market, according to their natural rates, the commodity is then sold for what may be called its natural price.’

‘The commodity is then sold precisely for what it is worth (!), or for what it really costs the person who brings it to market. . . .’

‘The actual price of every marketable commodity is regulated by the proportion between the quantity which is actually brought to market and the demand of those who are willing to pay the natural price of the commodity, or the whole value of the Rent, Labour, and Profit, which must be paid in order to bring it thither.’

These extracts affirm as clearly as can be that Rent, Wages, and Profits enter into the price of corn exactly in the same way, so that if one be a *cause* of high price, the other must be so too.

But in a subsequent chapter he says : ‘Rent, it is to be observed, enters into the composition of the price of commodities in a different way from Wages and Profit. High or low Wages and Profit are the *causes* of high or low price ; high or low rent is the *effect* of it. It is because high or low wages and profit must be paid in order to bring a particular commodity to market, that its price is high or low. But it is *because* its price is high or low, a great deal more, a very little more, or no more than what is sufficient to pay those wages and profits, that it affords a high rent, or a low rent, or no rent at all.’

Now in these extracts Smith’s doctrines on Rent are manifestly self-contradictory : in the first he makes rent to be a *cause* of price, in the second the *effect* of it. The practical question was this—whether, if the landlords gave up their rents, cost would be any the cheaper.

This gave rise to the well-known controversy on Rent which we have discussed in a future chapter.

*Conclusion.*

27. This school of Economists had the glory of finally placing the doctrines of Free Trade upon an imperishable basis in England. However, we cannot in this place narrate their eminent series of triumphs, because this work is intended for the development of scientific ideas.

But the **system** of the Second School of Economists has perished from internal anarchy. Bacon as well as all other philosophers has shown that all sciences must be based upon Fundamental Concepts, and if these be overhastily formed and not duly abstracted from nature the whole structure falls in ruins. We have in the preceding remarks shown the self-contradictions of Smith and Mill on some of the terms which are the basis of the whole science: and they are equally self-contradictory on all the others, though it would take too much space to point out all their self-contradictions.

The fatal defect of this School of Economists is that it is reared on too narrow a basis of induction. They only take a single small class of objects which have value, and found general propositions upon this single class, which, even if apparently true with respect to them, are only applicable to them, and are not generally true.

Instead of searching out and collecting *all* species of Economic Quantities before they frame their general Concepts, and making them wide enough to embrace all species of quantities, they begin by filling and obscuring the minds of their readers with conceptions and doctrines drawn from only one small class of Economic Quantities, and hence, as these Concepts, these 'notions of the mind (which are as the soul of words and the basis of the whole structure) are improperly and over hastily abstracted from facts, vague, not sufficiently definite, faulty, in short, in many ways, the whole edifice falls in ruin.'

The ruin of this school in England is owing to the notion that Labour is the cause of, or even necessary to Value. The followers of Ricardo assert that all Value is due to Labour; whereas, as a matter of fact, the least acquaintance with prac-

tical business shows that the enormously greater proportion of valuable things have no Labour associated with them at all. All ancient and all modern writers, except the English ones, have shown that **Demand** is the true cause and source of Value ; and even in those cases in which Labour is connected with Value, it is not the Labour which is the *Cause* of the Value, but the Demand for them. For, however much Labour may be bestowed upon things, if there is no Demand for them, they have no Value.

This relates to Fundamental Concepts. But when we come to the Theory of Value the system is equally faulty. Smith has no general theory of value, and the Ricardo-Mill Theory of Value makes a distinct Theory of Value for every distinct class of Economic phenomena. But such a scheme as this is utterly repugnant to the fundamental principles of Natural Philosophy, and would drive any Physical philosopher frantic.

The acknowledged principles of Natural Philosophy show that there can be but **one** General Theory of Value.

The fact is that Economics has burst the bonds of the Physiocrate nomenclature. The fundamental Concepts of the Physiocrates were framed to include material products only, and when the second school came and included in the science things such as immaterial products, which were expressly excluded by its founders, they stretched the definitions so as to include these new objects, and when they also included Rights, the definition become in fact unintelligible. But the attempt was hopeless, and only led to confusion. It was like putting new wine into old bottles. And Bacon says it is idle to expect any great advancement in science from superinducing and engrafting new things upon old. We must begin again from the very foundations. The fundamental Concepts of the Physiocrates will no more fit the facts of nature than the clothes of an infant will fit a full-grown man. To obtain a fitting general conception of the Science we must turn to another School of Economists. Therefore, although the second School of Economists have rendered great services to mankind, and added many isolated truths to the science, yet their **System**, like that of the Physiocrates, has passed away, and for the same reasons—it is not

general, it is totally repugnant to the fundamental principles of Natural Philosophy—and it is not conformable to nature.

Principiis tamen in rerum fecere ruinas  
Et graviter Magni magno cecidere ibi casu.

**Amplexi quod habent perverse prima viai**

## CHAPTER VII

## RISE OF THE THIRD SCHOOL OF ECONOMISTS

1. BUT when we adopt the other definition of the science which its founders declared to be equivalent and identical, that of Exchanges or Commerce, it is like the transformation scene in a pantomime. Harmony, order, and science are evolved out of incomprehensible chaos, like as from the stroke of the enchanter's wand.

We have seen that Condillac headed the reaction against the Physiocrats in France. In 1776, the same year that Smith published the *Wealth of Nations*, Condillac published a work entitled *Le Commerce et le Gouvernement*, with identically the same object—namely, to show that both manufacturing and commercial industry enrich a nation, and that in an Exchange both sides gain : consequently that nations are interested in each other's prosperity. Condillac died in 1780, when the interest in Economic speculation had died away with the fall of Turgot in 1776 ; and his work never seems to have attracted any attention till very recent times. We shall, therefore, give somewhat more attention to it than we otherwise should.

*Le Commerce et le Gouvernement*, though apparently so different in title, is nevertheless identical in plan with the *Wealth of Nations*.

He intended to have published three divisions of the work.

He begins by defining Economic Science to be the Science of Commerce : and the first division is devoted to explaining the principles of Commerce.

The second division examines the relations of Economic Science to the Government, and their reciprocal influence on each other.

The third division was to have contained a collection of

practical examples, showing the application of the principles developed in the two preceding parts. Unfortunately it was never written.

Condillac begins by investigating the foundation of Value : and shows that it originates entirely from the wants and desires of men. Things which satisfy some want have utility : and this want or estimation is called **Value**.

As people feel new wants they make use of things which they did not use before : they, therefore, give Value at one time to things to which at another they do not.

When things are very abundant they feel the want of any particular portion less, because they are not afraid of being without it. On the contrary, when things grow scarce, they feel the want more, because they may be without them altogether. Hence it is these variations in wants that give rise to variations in Value.

Hence all Value resides in the mind. But people have come to regard Value as an absolute Quality inherent in Things : and the confusion of ideas is the source of bad reasoning. Value is founded on estimation.

Condillac lays down, as a fundamental doctrine, 'A thing has not Value because it has cost much, as is commonly supposed : but expense is bestowed upon it, because it has great Value.'

Condillac shows that all variations in Value or Price are caused by variations in the Demand or the Supply of commodities : and, therefore, that there is no such thing as absolute price. The price varies from market to market, and is always settled by competition : and it is useless and dangerous to try to prevent these variations.

Commerce is the Exchange of two things, and everything which is exchanged is merchandise. Every article of merchandise is the Price of the other. He supposes two things : first, a superfluity of possessions on one part, and secondly a want on the other. Agriculturists and other producers, however, cannot always dispose of their surplus produce on the spot : there is, therefore, need of another class of persons to carry it to where it may be more profitably disposed of : and these persons are called merchants. This gives rise to a greater number of ex-



changes. Moreover, they give rise to Value : because if there was no Demand for the surplus on the spot where it is given; it would have no Value : but when they transport it to a place where it is wanted, it acquires a Value.

In this manner, therefore, Commerce augments the mass of riches. What then do merchants if, as is commonly said, an exchange is an equal Value given for an equal Value? If that were true, it would be useless to multiply exchanges : and there would always be the same mass of riches.

It is an error, however, to say that in an exchange the Values are equal. On the contrary, each party gives less and receives more. If they did not, there could be no gain on either side. But both sides gain or ought to do so : because Value has no reference except to our wants : and that which is more to one is less to another, and reciprocally.

The source of the error is in supposing that things have an absolute Value : and, therefore, that in an exchange they give and receive an equal value. Each, however, gives less and receives more : because he gives what he wants less and receives what he wants more. It is the surplus which furnishes the funds for commerce : and this surplus becomes Wealth when it can be exchanged for something.

If the surplus could not be exchanged, it would not be Wealth. Merchants are the canals by which the surplus is carried off : and thus they encourage husbandmen to grow more. A spring which loses itself in the sands is not Wealth to me : but it becomes so if I make trenches to carry it to my meadows. The spring is the surplus produce of the farmers ; the trench is the merchant.

As the wants of men multiply they give rise to the arts, and these increase the mass of Wealth. Each artisan increases the mass of Wealth, or the abundance of things which have Value. Hence husbandmen, artisans, and merchants augment the mass of Wealth. It is, therefore, shown that Labour is a source of Wealth.

Condillac then discusses wages, and shows why they differ in different employments. He defends the right of property and bequest, and discusses the nature and uses of money. He says that the use of money as a measure of value has given rise

to a confusion about Value. If men had continued to traffic by way of barter, they would have clearly seen that they always give less and receive more. But as soon as money was introduced, they naturally thought that it was an exchange of equal Values, because each was valued at an equal amount in money.

By means of money the respective Values of Quantities of corn and wine may be measured, and then men see nothing in their values except the money, which is their measure. All other considerations are lost sight of, because the quantity is the same; they think that each of the quantities is equal in Value. Nevertheless, although a man gives a quantity of corn valued at 10 ounces of silver, and receives a quantity of wine valued also at 10 ounces of silver, it by no means follows that the advantage of both parties is equal. Because if the corn is absolutely necessary to one and the wine is not necessary to the other, one has the advantage and the other not. The comparative advantages of the parties are, therefore, to be estimated by the intensity of their relative wants, and not by the absolute amount in money.

The merchant buys things wholesale and sells in retail, and receives back the price. Thus continual small sales replace the sums spent in purchasing in gross, and when the replacement is made, purchases are again made in gross to be replaced in detail. Money is, therefore, always being scattered to be again collected into reservoirs, as it were, from which it is again spread by a multitude of small canals, which bring it back to its first reservoir, whence it is again scattered, and to which it again returns. This continual movement which collects it to scatter it, and scatters it to collect it, is called **Circulation**. And this Circulation manifestly means an exchange at each movement. If there is no exchange it, is not **Circulation**. Mere transport of money is not Circulation. In Circulation the money must, as it were, transform itself into something else. Credit, however, is used to a great extent instead of money, and performs the same functions.

Condillac is sometimes classed as a Physiocrate, because he says in one place that the earth is the source of all Wealth. He also maintained the Physiocrate doctrine, that all taxation should be laid on the *Produit Net*, and that all taxation, however

imposed, ultimately comes back on the rent of land. It is true that there is this discrepancy of doctrine in one place : but we have only to erase one or two sentences and all contradictions disappear.

For he says that Economics is the Science of Commerce, which is the exchange of two things, and everything which is exchanged is merchandise. The generality of the definition covers all new things which may be brought into commerce : even though not at first contemplated by him. Thus Labour and Rights are exchanged : and, therefore, they are merchandise by his own doctrine.

Condillac's work can by no means be considered as a complete treatise ; and it requires immense development. It is imperfect, but it is not self-contradictory, as Smith and Mill are. It lays down the broad general outlines of Economics, or of the Science of Commerce. He places the source of Value in the human mind, or human wants and desires, or in **Demand** ; and having done so, he naturally shows that all variations in Value depend on variations in Demand and Supply. That is, as a Mathematician and a Physical Philosopher, he never dreamt that there could be more than a single general Theory of Value. He, as every Physicist who really paid attention to the subject, would have been utterly aghast at the notion that the science could be based on six or seven fundamentally distinct Theories of Value, as Mill has done.

Smith's work and Condillac's were published in the same year. Smith's immediately obtained great celebrity : Condillac's was, as far as we are aware, quite neglected. Nevertheless the whirligig of time is ever bringing about its revenges ; for all the most advanced Economists in Europe and America are now gravitating to the perception that Condillac's is the true conception of Economics. The beautiful clearness and simplicity, the instinct of the true physicist, are visible throughout. At length he will receive justice, and after the neglect of a century he emerges as the true founder of modern Economics.

2. Nor did the views of Adam Smith differ from this, because though he speaks of the Production and Distribution of Wealth,

yet that meant nothing but Commerce or Exchange, in Physiocrate phraseology; and he expressly says that the purport of his work is to investigate the principles which regulate the exchangeable value of commodities. Consequently the first two books of Smith are simply a treatise on Commerce such as it is. M'Culloch, his editor, in his note on the first page says, This science might, indeed, be called the Science of Values.

3. The next writer whom we know to have adopted this conception was Whately, when Professor of Political Economy at Oxford. He says—'A. Smith has designated his work *A Treatise on the Wealth of Nations*, but this supplies only a name for the subject matter, not for the science itself. The name I should have preferred as the most descriptive and, on the whole, least objectionable, is that of **Catallactics**, or the Science of Exchanges.

'Man might be defined "an animal that makes exchanges:" no other even of those animals which in other points make the nearest approach to rationality, having, to all appearance, the least notion of bartering or in any way exchanging one thing for another. And it in this point of view alone that man is contemplated in Political Economy. This view does not essentially differ from that of A. Smith; since in this science the term **Wealth** is limited to **Exchangeable Commodities**; and it treats of them so far forth only as they are, or are designed to be, the subject of exchange. But for this reason, it is perhaps the more convenient to describe Political Economy as the Science of Exchanges, rather than as the Science of national wealth. For the things themselves of which the science treats are immediately removed from its province, if we remove the possibility or the intention of making them the subject of exchange; and this though they may conduce in the highest degree to happiness, which is the ultimate object for the sake of which wealth is sought. A man, for instance, in a desert island like Alexander Selkirk, or the personage his adventures are supposed to have suggested, Robinson Crusoe, is in a situation of which Political Economy takes no cognizance; though he might figuratively be called rich, if abundantly supplied with food, raiment, and various comforts; and though

he might have many commodities at hand, which would become exchangeable, and would constitute him, strictly speaking, rich, as soon as fresh settlers should arrive.

‘ In like manner a musical talent, which is Wealth to a professional performer, who makes the exercise of it a subject of exchange, is not so to one of superior rank, who could not without degradation so employ it. It is in this last sense, therefore, though a source of enjoyment, out of the pale of Political Economy.’

Thus Whately expressly classes Labour of all sorts as Wealth ; and he also notices one kind of Right, namely, Copyright, as Exchangeable property : ‘ In many cases where an exchange really takes place the fact is liable (till the attention is called to it) to be overlooked, in consequence of our not seeing any actual transfer from hand to hand of a material object. For instance, when the copyright of a book is sold to a bookseller, the article transferred is not the mere paper covered with writing, but the exclusive *privilege* of printing and publishing. It is plain, however, on a moment’s thought that the transaction is as real an exchange as that which takes place between the bookseller and his customers who buy copies of the work. The payment of rent for land is a transaction of a similar kind ; for, though the land itself is a material object, it is not this that is parted with to the tenant, but the Right to till it, or to make use of it in some other specified manner. Sometimes, for instance, rent is paid for a Right of Way through another’s field ; or for liberty to erect a booth during a fair, or to race, or exercise horses. . . . This, by the way, evinces the impropriety of limiting the term Wealth to *material* objects.’ Thus Whately distinctly recognises the existence of the three orders of Exchangeable Quantities.

4. Ricardo adopted substantially the same view : because, though he calls his work on the Production and Distribution of Wealth, yet it is nothing more than a treatise on the Value or Prices of certain commodities. Quite unscientific, it is true, and only confined to a very small part of the subject ; but yet the general idea is the same.

5. The next writer who adopted this conception was Frede-

rick Bastiat. He says—‘Exchange is Political Economy. . . . “The causes, the effects, the Laws of these Exchanges constitute Political Economy.”’ And, speaking of persons rendering each other services, he says—‘There true Political Economy begins, because it is there we see the first appearance of **Value**. . . . It is this Exchange of services which is the subject matter of Political Economy. Economic Science is comprised in the word **Value**, of which it is the long explanation.’

6. The later school of American Economists since Carey have been more or less drifting towards this conception of the science ; but Professor Arthur Latham Perry has adopted it pure and simple. He says—‘Political Economy is the Science of Exchanges, or, what is exactly equivalent, the Science of Value.’ ‘So far as men satisfy their own wants by their own efforts without exchange they stand outside the pale of the science. Under these circumstances the idea of Value could neither have birth nor being ; and of course there could be no such thing as a Science of Value.’ . . . ‘The only one which seems to the present writer to be exactly right is the definition given by Archbishop Whately, namely, the Science of Exchanges. This definition, or its precise equivalent, the Science of Value, gives a perfectly definite field to Political Economy. Wherever Value goes this science goes, and where Value stops this Science stops. Political Economy is the Science of Value and nothing else.’ ‘This definition is drawing to itself the most recent investigators in France, England, and America : and the scientific development of it has already put Political Economy into a new and better posture.’

7. In 1863 M. Rouher, when Minister of Commerce and Agriculture under the French Empire, directed M. Richelot, one of the chiefs of departments in his Ministry, to draw up a Report on those of our works which were then published, in a Volume entitled ‘Une Révolution in Economie Politique,’ which he caused to be distributed to all the Chambers of Commerce in France. The following are some extracts from this work :—

‘The object of the present exposition is neither more nor less than a revolution in the science of Political Economy. . . .

'A series of scientific discoveries has just passed under the eyes of our readers. A new definition, clear and rigorous, of Political Economy has been substituted for one vague and insufficient. The most important word in the science, **Value**, has been explained with perfect clearness, and the errors which had obscured it refuted peremptorily. The domain of Wealth has been enriched by a new series of elements, which until now had escaped the attention of Economists. The Law of Supply and Demand, discovered long ago, but which until now had remained vague and sterile, even misunderstood, has become living and fruitful as the General Law of Prices, as the supreme Law of Political Economy, and it has been verified by a happy and decisive application to all Economic phenomena; to the case of the definitive sale as well as to the sale for a period, or the use of things, rent, hire, wages, interest. The true meaning of money has been faithfully explained, in such a way as to satisfy the scientific requirements of our age. The definition of Capital has been reduced to a simple and intelligible formula which suits it. For the first time Credit, which has hitherto been despised, has been appreciated in all its importance, and has come to join its immense resources to Capital. The Production and Consumption of Wealth have been disengaged from foreign elements, and reduced to Supply and Demand in view of Exchanges.

'These great innovations, after having been explained in succession, have been controlled and placed beyond all question by the employment of the methods approved and adopted in the sciences already recognised as exact.

'All this amply justifies the title inscribed on this work—a *Revolution in Political Economy*.'

And this view has now become general among the most recent and advanced Economists in Europe, who are too numerous to name, that Pure Economics is nothing but the Science of Exchanges.

*General Characteristics of the Three Schools of Modern Economists*

8. To impress the subject more clearly on the mind of the student, we may recapitulate the broad general characteristics of the doctrines of ancient writers, and the three modern Schools of Economists.

Ancient writers unanimously held that the sole essence and principle of Wealth is Exchangeability ; and they showed that there are three distinct orders of Exchangeable Quantities : (1) Material things ; (2) Labour ; (3) Rights of various kinds.

All these three orders of Quantities they termed *Pecunia*, *Res*, *Bona*, *Merx*, χρήματα, αγαθα, πράγματα, &c.

The Physiocrats, or first school of modern Economists, restricted the term Wealth to the *material products* of the earth which are brought into commerce and exchanged.

They expressly excluded Labour and Rights from the term Wealth.

They originated the expression, the 'Production, Distribution, and Consumption of Wealth,' which phrase is one and indivisible, and meant the Commerce or the Exchange of the *material products* of the earth, and those only.

Thus they only recognised and considered one kind of exchange ; and they alleged that all Exchanges are of products against products.

The second school of Economists adopted the definition 'Production, Distribution, and Consumption of Wealth,' or some variation of it, as the definition of Political Economy ; but they all expressly include Labour under the title of Wealth or as a vendible commodity.

They also admit one class of Rights, such as Bank Notes and Bills of Exchange, which are Credit as Capital ; but they omit all other forms of this order of Quantities.

They treat only of the exchange of products against products, products against services, and of services against services : that is, they treat only of the exchange of two sorts of quantities (while admitting the existence of the third), and of three kinds of exchange.



The third school of Economists adopt the alternative and equivalent expression, Science of Commerce or Exchanges ; and adopt the definition of Wealth as anything whatever which is Exchangeable, or which can be bought and sold ; and include all the three orders of Exchangeable Quantities, as the ancient writers unanimously did ; and introduce the whole mass of Incorporal Property into the science ; and thus show that there are *six* different kinds of Exchange, which comprehends all Commerce in its widest extent, and in all its varieties ; and for the first time brings the subject of Credit and Banking within the domain of the Science.

It has therefore been shown that the term ' Production, Distribution, and Consumption of Wealth,' means simply the Theory of the Value of *one* class of quantities only, namely the *material products* of the earth ; while the science of Exchanges means the Theory of Value in general, and includes all the *three* orders of Exchangeable Quantities and all the six distinct kinds of Exchange ; and, when the question is brought to this simple issue, can there be the least hesitation as to which is the best conception ?

Adopting, then, this conception of the Science of Economics, which is clearly seen to be merely the generalisation of the ideas of the two preceding schools, and which must commend itself to every one accustomed to the study of other sciences, we have a distinct body of phenomena all based upon a single idea, and therefore fitted to form a great demonstrative science of the same rank as Mechanics or Optics, or any other Physical Science. Another great body of particulars is won from the vague, floating, and uncertain mass of knowledge, won from the void and formless infinite, and fixed and circumscribed by a definition, and formed into a great Inductive Science, whose investigations must be governed by the same general principles of Inductive Logic, as others are, and yet will be found to contribute its quota to Inductive Logic, bearing a general similarity to its sister sciences, and yet with peculiarities of its own.

Facies non omnibus una  
Nec diversa tamen : qualis decet esse sororum.

And as Quantities of such diverse natures as men, cattle of

all sorts, the wind, gravity, gunpowder, steam, &c., are all included in the science of dynamics because they all exert force, whose effects can be measured numerically, and dynamics regards them simply as forces, wholly irrespective of any other Qualities they may possess : so we see how Quantities of such diverse natures as money, houses, lands, debts, men, copyrights, cattle, the funds, sciences, clothes, labour, and rights of all sorts are all included in the science of Economics, because they have all the Quality of Exchangeability, or the capability of being bought and sold : and Economics regards them only in respect of this Quality, wholly irrespective of any other Qualities they may possess. Thus we see the true field of the science : an Economist is one who reasons about the Laws of Value.

*Examples to show the Superiority of the Definition adopted  
by the Third School of Economists*

9. A few examples will show the superiority of the definition of Economics as the Science of Exchanges over that of the 'Production, Distribution, and Consumption of Wealth,' which was only meant to apply to the exchanges of the *material products* of the earth.

In the first place, the land itself is a saleable commodity. The land on which a town is built has a great Value ; and is bought and sold : it may be exchanged : but how is that the Production, Distribution, and Consumption of Wealth ?

Labour itself is a valuable commodity : it has Value : and the whole of the Second School of Economists discuss the laws relating to the Value of the Commodity Labour, just as that of a material chattel : it is therefore an Exchange : but how is it the Production, Distribution, and Consumption of Wealth ?

An author writes a successful work : the copyright of it can be bought and sold : it has Value : it may be exchanged : but how is it the Production, Distribution, and Consumption of Wealth ?

A person invents a successful machine : the Patent of it has Value : it may be bought and sold : it is an exchange : but how is it the Production, Distribution, and Consumption of Wealth ?

The Funds are a valuable property : they may be bought and sold : it is an Exchange : but how is it the Production, Distribution, and Consumption of Wealth ?

Shares in commercial companies have Value : they may be bought and sold : it is an Exchange : but how is it the Production, Distribution, and Consumption of Wealth ?

An Advowson is a valuable commodity : it may be bought and sold : but how is that the Production, Distribution, and Consumption of Wealth ?

A banker discounts a Bill of Exchange by giving in exchange for it a Credit on his books : that is an Exchange : it is an instance of Value : but how is it the Production, Distribution, and Consumption of Wealth ?

And innumerable other examples will suggest themselves to the student.

#### **Economics is a Physical Science**

10. Having now got a clear and distinct conception of the science of Economics, we see at once how it is a Physical Science. What is there in the name of the 'Production, Distribution, and Consumption of Wealth' to suggest any resemblance to a Physical Science? But as soon as we adopt the alternative and equivalent definition of the science as the Science of Exchanges or of Commerce, we see at once how it is a Physical Science. Because there being *three* orders of Exchangeable Quantities, and therefore *six* species of Exchanges, the object of the science is to determine the *Laws of the phenomena* of these Exchanges—that is, to determine the Laws which govern the changes in their numerical relations of exchange. Hence we have a new order of Variable Quantities : and the Laws which govern this new order of Variable Quantities must be in strict harmony with the Laws which govern the relations of Variable Quantities in general. The same general principles of reasoning which govern the varying relations of the stars in their courses must govern the varying relations of Economic Quantities. It is now universally admitted that Economics is to be constructed on principles analogous to those of a Physical Science. Astronomy is the Physical Science which is the type of Economics. The

Astronomer sees a vast number of heavenly bodies moving in all sorts of directions—sometimes advancing, sometimes apparently stationary, sometimes retrograding—and his object is to discover a single general Law, which accounts for and governs all these varying relations. So the Economist sees a multitude of Quantities constantly changing their numerical relations to each other, and his object is to discover a single general Law which governs all these varying relations. Like Astronomy, Economics is a pure science of ratios.

And the analogy between Astronomy and Economics may be still further shown. Some persons consider that it is not sufficient to say that Value originates in Demand : but that the Economist should go further and investigate the cause of Demand. But that would be a great error : it would introduce the whole of Psychology into Economics. An Economist, *quæ* Economist, has no more to do with the causes which produce Demand, than an Astronomer, *quæ* Astronomer, has to do with the cause of Gravity. So also an Economist, *quæ* Economist, has nothing to do with the processes of agriculture and manufacturers any more than the Astronomer, *quæ* Astronomer, has to do with the methods by which the heavenly bodies were formed. The Astronomer finds his Force, which is Gravity, and certain material bodies upon which it acts : the Economist finds his Force, which is Demand, and certain Quantities upon which it acts : the business of the Astronomer is to determine the *Laws of the phenomena* of the motions of the heavenly bodies, in their varying relations to each other : that defines and limits his science. The business of the Economist is to determine the *Laws of the phenomena* of Exchanges, or the varying relations of Economic Quantities : that defines and limits his science : each is a pure science of Variable Quantities.

Thus it is clearly seen to be a Physical Science : but it is also a Moral Science : because its Laws are based upon the *mores*—the *ἥθη*—of men. For we find that the same general laws of exchange hold good among all nations, among the rudest and the most civilised in all ages and countries. We find that the same causes are invariably followed by the same effects : and that is the reason why Economics may be raised to the rank of an exact science : a permanent and universal

science of the same nature as the Physical ones : because it is based upon principles of human nature which are found to be as permanent and universal as those of the physical substances upon which the Physical Sciences are based. And therefore it is a Physical Moral Science, and the only Moral Science which is capable of being raised to the rank of an exact science.

#### *On the Best Name for the Science*

11. Having thus got a clear and distinct Science, the next thing is to consider and determine what is the best name for it. We have already seen how the term Political Economy became attached to the science of the 'Production, Distribution, and Consumption of Wealth,' or of Commerce or Exchanges. But all Economists are now anxious to get rid of this term as cumbersome and misleading, and various other designations have been proposed. Whately proposed **Catallactics** : others have proposed *Plutology* or *Chrematology*. These and various other names which have been proposed are in themselves unexceptionable, and, if the science had been a new creation, might very well have been adopted. But under present circumstances these changes are too violent to be readily received. The name by which a science is called is of very little importance : the real requisite is that its nature and objects should be clearly defined. There is no advantage to be gained by changing the name of a science which has once acquired a firm hold in popular usage, even though that name would probably not have been the best that might have been selected if the science were a new creation. There are few sciences which have not undergone a great extension or alteration of what the meanings of their names would suggest. Plato long ago laughed at the idea of calling the science which treats of the motion of the heavenly bodies, Geometry. Yet Geometry has retained its name from that day to this : and the French call a great analyst a great Geometer. Trigonometry has long expanded beyond the measuring of triangles. Who could tell what Chemistry or Electricity meant by their names? In ancient times Music meant all the liberal studies : in modern times it is restricted to the modulation of sounds.

The name of Political Economy, or Economic Science, is so firmly rooted in the public mind that no advantage would be got by changing it; and, furthermore, there is no reason for changing it, as the true character of the science is expressed in its very name. It is often supposed that *οἶκος* in Greek means a house, and that an Economist is the master of a house. But *οἶκος* has a more extensive meaning than that of a house only. Throughout the whole range of Greek literature, from Homer to Ammonius, *οἶκος* means Property, or Estate of every description. Thus not only houses, lands, money, corn, timber, &c., are a man's *οἶκος*; but also all such Property as Bank Notes, Bills of Exchange, the Funds, Shares in Commercial Companies, Copy-rights, &c. &c.

Thus Homer says :

κατέδουσι βιαίως  
οἶκον Ὀδυσσῆος, τὸν δ' οὐκέτι φασὶ νέεσθαι,

*They forcibly devour the substance of Ulysses, who they say will never return.*

Also : ἐσθιεται μοι οἶκος,

*My Property is being devoured.*

And in the *Odyssey* *οἶκος* is used in numerous passages as equivalent with *χρῆμα* and *βίος*.

Herodotus says : καὶ οἶκον τοῦ πατρὸς διαφορηθέντα,

*And the Property of your father wasted away.*

Demosthenes says : οἶκοι διπλάσιοι καὶ τριπλάσιοι γεγόνασι,

*Their fortunes have doubled and tripled.*

In the *Economicus* of Xenophon, Socrates expressly points out the distinction between *οἶκος* and *οικία*, the latter being the house only, and the former all a man's substance or estate. But in later times *οικία* also acquired this extended meaning.

So Ammonius says : οἶκος λέγεται ἡ πᾶσα οὐσία.

*οἶκος means all Property.*

*Οἶκος* was the technical term in Attic Law to denote a man's whole substance or estate.

Hence Economics is the most apt and fitting term which could be chosen to denote the Science which treats of the Exchanges of property. Moreover the Physiocrats called their science 'Economical Philosophy,' and Condillac expressly de-

fined 'Economic Science,' or 'Economics,' to be the Science of Commerce.

Hence we do not propose to make any change at all in the name of the science. Both the terms 'Political Economy' and 'Economic Science,' or 'Economics,' are in common use, and it seems better to discontinue that name, which is liable to mis-interpretation, and which seems to relate to politics, and to adhere to that one which most clearly defines its nature and extent, and is most analogous to the names of other sciences. We shall, therefore, henceforth discontinue the use of the term Political Economy, and adhere to that of **Economics**. Economics, then, is simply the Science of Exchanges, or of Commerce, in its widest extent and in all its forms and varieties; it is sometimes called the Science of Wealth, or the Theory of Value.

The definition of the Science which we offer is—

**Economics** is the Science which treats of the Laws which govern the relations of Exchangeable Quantities.

And the late distinguished Economist, M. Michel Chevalier, did us the honour to say that in his opinion this is the best definition of the science that has yet been proposed; and he adopted our *Principles of Economical Philosophy* as his text-book at the Collège de France, and wrote to us: 'It is your book which serves me as the guide for all the philosophy of my teaching at the Collège de France.'





BOOK II  
PURE ECONOMICS

καλὴ μὲν οὖν καὶ θεία εὐ ἴσθι ἡ ὀρμὴ, ἣν ὀρμᾶς ἐπὶ τοὺς Λόγους.  
ἔλκυσον δὲ σαντὸν καὶ γύμνασαι μᾶλλον διὰ τῆς δοκούσης ἀχρήστου  
εἶναι καὶ καλουμένης ὑπὸ τῶν πολλῶν ἀδολεσχίας, ἕως ἔτι νέος εἶ· εἰ  
δὲ μὴ σὲ διαφεύξεται ἡ ἀλήθεια.

Know well then that worthy and godlike is the zeal with which you rush upon **Definitions**. Apply yourself to it, and practise it while yet you are a novice—all the more because it seems useless, and is called trifling by the vulgar : for if you do not, the truth will escape you.—PLATO.

ἐκείνος εὐλόγως ἐζητεῖ τὸ τί ἐστίν. συλλογίζεσθαι γὰρ ἐζητεῖ,  
ἀρχὴ δὲ τῶν συλλογισμῶν τὸ τί ἐστίν.

He (Socrates) wished to reason systematically, and therefore he tried to establish **Definitions** : for Definitions are the basis of systematic reasoning.—ARISTOTLE.

Every man who aspires to true knowledge should examine the Definitions of former authors, and either correct them, or make them anew.—HOBBS.

Definitiones enim et partitiones, et horum luminibus utens oratio : tum similitudines, dissimilitudines, et earum tenuis et acuta distinctio, fidentium est hominum, illa vera et firma et certa esse quæ tutentur.

For Definitions and divisions, and a discourse which employs these ornaments, and also similarities and dissimilarities, and the subtle and fine-drawn distinctions between them, belong to men who are confident that the arguments which they are upholding are true, and firm, and certain.—CICERO.

The mixture of those things by speech which are by nature divided is the mother of all error.—HOOKER.

## CHAPTER I

### ON THE FUNDAMENTAL CONCEPTIONS OF ECONOMICS

#### *Meaning of the term Economics*

**1. Economics** is the Science which treats of the Principles and Mechanism of Exchanges, or of **Commerce**, in its widest extent, and in all its forms and varieties.

The term Economics is compounded of the Greek words *οἶκος* and *νόμος*.

*Οἶκος* in Greek means **Property** of every sort and description. It is the technical term in Attic law for a person's whole substance and estate, and includes, not only such Property as lands, houses, cattle, timber, corn, money, jewels, &c., and all material property, but also all such Property as Bank notes, bills of exchange, debts, the funds, shares in commercial companies, copyrights, patents, &c., which in law are termed Incorporeal Property.

*Νόμος* in Greek means a Law.

Hence Economics is the Science which treats of the *Laws which govern the relations of Exchangeable Quantities*; or the *Principles of Commerce*: or the *Theory of Value*. It is sometimes called the *Science of Wealth*.

#### *On the Definition of Wealth or of an Economic Quantity*

**2.** Ancient writers unanimously held that Exchangeability is the sole essence and principle of Wealth: i.e. the capability of being bought and sold: and that everything whatever which can be bought and sold, or exchanged, is **Wealth**, whatever its nature may be.

Thus Aristotle says:—

*χρήματα δὲ λέγομεν πάντα ὅσων ἡ ἀξία νομίσματι μετρεῖται.*

*'And we call **Wealth** all things whose Value is measured by Money.'*

So the eminent Roman Jurist Ulpian says :—*'Ea enim Res est quæ emi et venire potest.'*

*'For that is **Wealth** which can be bought and sold.'*

The most recent Economists agree in this definition. Thus Mill says :—*'Everything, therefore, forms a part of **Wealth** which has a **Power of Purchasing**.'*

This is the definition which we adopt as the basis of the Science.

A **Quantity** means anything whatever which can be measured : hence an **Economic Quantity** means *anything* whatever whose *Value can be measured in Money*.

The sole criterion then of anything being Wealth is—Can it be bought and sold? Can it be exchanged separately and independently of anything else? Can it be Valued in Money?

This criterion may seem very simple : but, in fact, to apply it properly : to discern what is and what is not separate and independent Exchangeable Property, requires a thorough knowledge of some of the most abstruse branches of Law and Commerce.

### *On the Three Species of Wealth or of Economic Quantities*

3. Adopting then the definition of Wealth, or of an Economic Quantity, as **Anything** whatever which can be bought and sold, or exchanged, or whose Value can be measured in Money, which, from its generality, is evidently fitted to form the basis of a great Science, we have next to discover how many distinct orders or Species of Quantities there are which satisfy this definition ; or which can be bought and sold, or exchanged.

I. **Material or Corporeal Things.** There are material things, such as lands, houses, money, corn, timber, cattle, and herds of all sorts, jewelry, minerals, and innumerable things of this nature which can be bought and sold, and whose Value is measured in money.

II. **Immaterial Wealth.** A person may sell his Labour or Services in many capacities for money, such as a ploughman, an artisan, a carpenter, or as a physician, an advocate, an engineer, an actor, or a soldier : and when he receives a definite

sum of money for such Labour or Service its *Value is measured in money*, as precisely as if it were a material chattel.

We have already cited in a previous chapter the Dialogue called the Eryxias to show that Labour of any sort which is paid for is **Wealth**, for the very same reason that gold and silver are **Wealth**.

We have also shown that Smith expressly classes the natural and acquired abilities of the people as **Wealth** : and he says:— ‘The Property which every man has in his own Labour, as it is the original foundation of all other property, so it is the most sacred and inviolable. The patrimony of a poor man lies in the strength and dexterity of his hands.’

J. B. Say aptly gave the name of **Immaterial Products** to Labour and Services—‘He who has acquired a talent at the price of an annual sacrifice enjoys an accumulated Capital : and this **Wealth**, though **Immaterial**, is, nevertheless so little fictitious, that he daily exchanges the exercise of his art for gold and silver’—‘Since it has been proved that **Immaterial Property**, such as Talents and acquired Personal Abilities, form an integral part of Social **Wealth**.’

So again—‘You see that Utility, under whatever form it presents itself, is the source of the value of things : and what may surprise you is that, this Utility can be created, can have Value, and become the subject of exchange, without being incorporated in any material object. A manufacturer of glass places Value in sand : a manufacturer of cloth places it in wool : but a physician sells a Utility without being incorporated in any matter. This Utility is truly the fruit of his studies, his labour, and his capital. We buy it in buying his opinion. It is a real product, but **Immaterial**.’

Senior also has a long and eloquent passage to maintain that **Knowledge is Wealth**, which we regret is too long to be inserted here.

So Mill says—‘The skill and the energy, and the perseverance of the artisans of a country, are reckoned part of its **Wealth** no less than their tools and machinery’—‘Acquired capacities which exist only as a means, and have been called into existence by labour, fall exactly, as it seems to me, within that designation.’

III. **Incorporeal Wealth.** We have already seen that there are vast masses of Property which exist only in the form of abstract Rights, quite separate and severed from any material substances, which can all be bought and sold, and whose *Value can be measured in money*, exactly like that of any material chattel ; which are all classed under the terms *Pecunia, Res, Bona, Merx*, in Roman Law ; and under the terms  *χρήματα, οίκος, πράγματα, ἀγαθὰ, περιουσία, πλούτος, ἀφορμή*, in Greek Law : and as we shall see, under 'Goods and Chattels' in English Law : and therefore must be classed under the term **Wealth** in Economics.

4. And this species of Property has exactly the same varieties as material substances. Some kinds of it are immovable like land : some may be carried about like a material chattel : it may be donated or bequeathed : it may be bought and sold and traded with : and some kinds may be exported and imported and transmitted from country to country exactly like any other merchandise.

5. We have therefore found **three** distinct Orders of Quantities which can be bought and sold, or exchanged : and therefore which satisfy the definition of Wealth. And reflection will show that there is nothing which can be bought and sold which does not fall under one of these three orders of Quantities. Hence there are three orders of Quantities, and only three, which satisfy the definition of Wealth : and these may be symbolised by the terms **Money, Labour, and Credit** : Money being taken as the type of all Material things : Labour as the type of Services of all sorts : and Credit as the type of Rights of all sorts. These are the materials of which all Commerce consists : and all Exchanges, that is all Commerce, consist of the exchanges of these three orders of Quantities.

*Commerce or Economics consists of Six distinct kinds of Exchange*

6. There being then three, and only three, distinct orders of Exchangeable Quantities, Commerce consists in their exchanges. And as these three orders of Quantities can be combined two

and two in **six** different ways, it follows that Commerce in its widest extent consists of **six** distinct kinds of exchange : these are—

1. The exchange of a Material thing for a Material thing.— Such as so much corn, cattle, or land for so much gold.

2. The exchange of a Material thing for Labour or a Service.—As when gold or silver money is given as wages, fees, or salary for services done.

3. The exchange of a Material thing for a Right—as when gold money is given in exchange for the funds, or a Copyright, or Bill of Exchange.

4. The exchange of Labour for Labour—as when persons agree to exchange one kind of Labour for another kind of Labour.

5. The exchange of Labour for a Right—as when wages or salaries are paid in bank notes.

6. The exchange of one Right for another Right—as when a Banker buys a Bill of exchange, which is a Right, by giving in exchange for it a Credit in his books, which is another Right.

These Six kinds of exchange comprehend all Commerce in its widest extent and in all its varieties. They constitute the great Science of **Pure Economics**, or the Science which treats of the Exchanges of Property, which is the subject matter of this Book.

#### *On the Meaning of the word **Property***

7. Economic, or Exchangeable, Quantities are therefore of three distinct orders, (1) Material things : (2) Labour or Services : (3) Rights : typified by the terms Money, Labour, and Credit. The next thing to be done is to find a general term which will include them all : and this general term we shall find in the word **Property**. And when we understand the true meaning of the word Property, it will throw a blaze of light over the whole science of Economics : and clear up all difficulties to which the word Wealth has given rise : in fact, the meaning of the word **Property** is the key to all Economics.

Most persons, when they hear the word Property, think of some material things, such as lands, houses, money, corn, cattle,

&c. But that is not the true and original meaning of the word Property.

**Property** in its true and original meaning is not any material substance, but the absolute **Right** to something.

In early Roman jurisprudence a man's possessions were called **Mancipium**, because they were supposed to be acquired by the strong hand in war : and if not retained with a very firm grasp would probably be lost again. The same word Mancipium was applied not only to the things themselves, but to the absolute ownership in them. Thus Lucretius says—

Vitaque Mancipio nulli datur, omnibus usu.

*'And Life is given in absolute ownership to none, but only as a Loan to all.'*

In process of time a new word came into use. All the possessions of the family (*domus*) belonged to the family as a whole : but the head of the house, *Dominus*, alone exercised all Rights over them. He alone had the absolute ownership of his *familia*, and all its possessions. Hence this Right was termed **Dominium** : and *Dominium* was always used in Roman Law to denote absolute ownership.

In the time of the early Emperors the extreme rigour of the *Patria Potestas* was relaxed : and in some cases individual members of the family were allowed to have Rights to possessions independently of the head of the house and its other members : and this Right was termed **Proprietas**.

The strict rigour of the *Patria Potestas* began gradually to be relaxed when the *Dominus* granted the exclusive Right to certain things to his sons or slaves. This was termed *Peculium*.

The early Emperors Augustus, Nero, and Trajan enacted that the sons of a family might possess in their own Right and dispose of by will, as if they were *Domini*, what they acquired in war. This was called *Castrense Peculium*. This Right of holding possessions independently of the other members of the family was considerably extended by subsequent Emperors : and it was termed **Proprietas**.

*Proprietas* therefore in Roman Law meant the absolute and exclusive **Right** which a person had to anything independently of any one else : and was synonymous with *Dominium*. 'Pro-



proprietas id est Dominium,' says Neratius, a jurist of the time of Hadrian.

Thus Gaius says—'Non solum autem Proprietas nec eos quos in potestate habemus acquiritur nobis.'

'*Not only therefore do we acquire absolute Property by means of those, &c.*'

See also Justinian—'Transfert Proprietatem mercium.'

'*Transfers the Property in the goods.*'

And in other instances too numerous to quote.

Thus the word *Proprietas* in Roman Law never meant a material thing, but the absolute **Right** to it; the thing itself was *Materia*.

*The word Property in English properly means a Right and not a Thing*

3. So in English the word Property was always originally used to mean a **Right**, and not a Thing. Thus grand old Wycliffe says—'They will have Property of ghostly goods where no Property may be: and leave Property in worldly goods where Christian men may have Property.'

So Bacon invariably uses the word Property to mean a Right and not a Thing. He says one of the uses of the Law 'is to dispose of the *Property* of their goods and chattels.' He explains the various methods by which 'Property in goods and chattels may be acquired.' So he speaks of the 'Property or Interest of a timber tree:' and in many other passages.

Property, then, in its true and original sense, means solely a Right, Title, Interest, or Ownership: and consequently to call material things like lands, houses, money, cattle, &c., Property, is as great an absurdity as to call them Right, Title, Interest, or Ownership. Neither Bacon, nor, as far as we are aware, does any writer of his period call material goods Property: such a use of the word is quite a modern corruption, and we cannot say when it began.

Every jurist knows that the true meaning of the word Property is a Right. Thus Erskine says—'The sovereign or real Right is that of *Property*, which is the *Right* of using and disposing a subject as our own, except in so far as we are restrained by law or paction.'

So Lord Mackenzie says—‘*Property* is the *Right* to the absolute use, enjoyment, and disposal of a thing without any restraint except what is imposed on the owner by Law or Paction.’

And this meaning of Property has been recognised by Economists as well as by jurists. Thus Mercier de la Rivière, one of the most eminent of the Physiocrats, says—‘Property is nothing but the Right to enjoy.’ ‘It is seen that there is but one Right of Property : that is a Right in a person : but which changes its name according to the nature of the object to which it is applied.’

Thus Landed Property : Funded Property : House Property : Real Property : Personal Property : Literary Property : mean Rights to Land : Rights to Houses : Rights to Realty : Rights to Personalty : Rights to payments from the nation : Rights to the profits from literature and art : and so on.

#### *On Right of Property and Right of Possession*

9. But though all Property is a Right, it must be observed that all Rights are not Property.

There is an essential distinction between the mere Right of Possession and the Right of Property.

Thus where a man lends another his horse, or a book, or a picture : or delivers goods to him as a common carrier, to be conveyed from one place to another : or deposits goods or valuables with him as a warehouseman for the mere purpose of being safely kept : or by way of pledge, hypothec, or lien : or hires a horse, or house, or furniture : or finds valuable goods : in all these cases the person has the mere Right of Possession of the goods : and he can bring an action against any one who wrongfully deprives him of their possession. But he has no Right to use the goods in any way except in the way and for the specific purpose for which they are delivered to him. He has, therefore, only a specific Right to them : but not the absolute ownership in them to deal with them in any way he pleases.

10. The word Property means absolute, entire, and ex-

clusive ownership : it is the absolute Right to deal with the goods in any way the Proprietor pleases.

Property comprehends the *Jus utendi, possidendi, fruendi, abutendi, et vindicandi* : or the Right of possession : the Right of using the thing in any way : the Right of appropriating any fruit or profit from it : the Right of alienating or destroying it : and the Right of reclaiming it if found in the wrongful possession of any one else.

The word Property or Dominion then does not mean a single Right : but an aggregate or bundle of Rights : it comprehends the totality of Rights which can be exercised over anything.

*On the Meaning of Persona and Res in Roman Law*

11. It will be very useful to understand clearly the meaning of **Persona** and **Res** in Roman Law.

The word *Persona* means any single person, or any society of persons, who can enjoy and exercise Rights. Thus in a partnership each individual member is a *Persona* : and also the partnership itself is a *Persona* quite distinct from its individual members. Hence each member of the partnership can have dealings with, and buy and sell with, the partnership as a separate individual.

So a Joint Stock Company is a *Persona* : and when the individual members pay their money as Capital to the company, the property in it is gone from them and vests in the company : and what they receive in exchange for their money is the Right to share in the Profits made by the company in the proportion in which they have contributed Capital. A shareholder in a Joint Stock Bank banks with the bank as a separate person.

So the State is a *Persona* separate and distinct from the citizens : and private persons can lend money to the State, and receive in exchange for it the Right to demand a series of annual payments. These Rights in common language are called the Funds.

The Parson of a parish is the *Persona*, or Person, who has the Right to certain dues for performing religious services : and this Right is termed a Benefice.

Thus a *Persona* may be defined to be a centre of Rights.

Many individual men may make up one *Persona* : and also a single individual may be several *Personæ*. Thus a man may be executor of one person : guardian of another : trustee of another : in each of these he is a separate *Persona* or Character, with a distinct set of Rights and Duties, and he may traffic or buy and sell or exchange with himself in these separate *personæ* or characters. Hence all exchanges take place among separate *personæ*.

**12.** And as *Persona* means any body, single or corporate, which can enjoy rights, so **Res** means anything whatever which can be the subject of a Right. Thus, not only Material things are *Res*, but also human actions or labour. If I hire a workman to do so much labour of any sort for me, I have the Right to have that Labour performed, and therefore that Labour is a *Res*.

So if I have the Right to demand a sum of money from a person at a future time, that Right is a *Res* : or the Right to share in any profits of any sort at a future time.

A Right to some specific material object which has already come into possession is termed **Res Corporalis** : a mere abstract Right to something which will only come into possession at some future time is termed a **Res Incorporalis**. In modern times these Incorporal Rights have attained enormous magnitude, and increased at a much greater ratio than Corporeal Property. But as each of these different kinds of Right can be bought and sold, or exchanged, or their *Value can be measured in money*, they are each equally classed under the terms Pecunia, Res, Bona, Merx, in Roman Law : οἶκος, χρήματα ἀγαθὰ, ἀφορμή, πλοῦτος, περιουσία in Greek Law : goods and chattels in English Law : and **Wealth** in Economics.

*On several words in English Law which mean Rights  
and not Things*

**13.** We have seen that the true and original meaning of the word Property is a **Right** and not a **Thing**.

There are besides a considerable number of words in English Law which are frequently used in common parlance to mean Things, but in reality mean **Rights**.

Thus, when a nobleman or gentleman has a large **Estate**, it is popularly supposed that he has the Property in a large quantity of land ; and the *Land* is supposed to be his *Estate*. That, however, is a complete error. In the first place, as Mr. Williams says—‘ The first thing the student has to do is to get rid of the idea of absolute ownership. Such an idea is quite unknown to English Law. No man is in law the absolute owner of lands. He can only hold an **Estate** in them.’

Absolute Property in land is termed allodial. In the Roman empire the owners of land held it in absolute Property or *Dominium*, without any superior. And before the Conquest this was the case in England as well as in other countries. Wherever Roman Law prevailed the land was equally divided among a man’s children at his death, the same as his movable goods. This was the origin of the small properties in France, which so many believe was the consequence of the French Revolution. Whereas the fact is that this law was inherited from the Roman empire, and it applied to all *roturier* land. But all feudal land was taken out of its operation, and subjected to the law of primogeniture. What the French Revolution did was to re-establish the law of equal partition in regard to feudal land. The law of equal division also prevailed in England, and it is supposed that the multitudinous hedgerows which in many parts of the country used to divide the land into so many minute patches, but which are fast disappearing before improvements in agriculture, were the consequences of this law.

Feudal tenure had to a certain extent been introduced into England before the Conquest. But William I. assumed the absolute Property of all the lands in England, except Church lands, and the county of Kent, for the Crown. He made a composition with the men of Kent to maintain their ancient customs : so that land in Kent remains as formerly divisible equally among the family. This is called the custom or law of Gavelkind : but most of the land in Kent has been disgavelled by various Acts of Parliament.

The Conqueror then being the sole absolute owner or Proprietor of the land in England, except as above, granted out to his followers certain Rights of use and enjoyment in certain lands : and those **Rights** were termed **Estates**.

But the persons to whom these Rights were granted were bound to render certain services in return, and they were never called owners or Proprietors, but only **Tenants**. They were only permitted to enjoy the use and profits of these lands on the express condition of rendering those services to the Crown, which if they failed to do, they were as strictly liable to forfeiture as a modern tenant or farmer for nonpayment of rent. And at first these Estates were neither alienable, nor transmissible by will, but were strictly life tenancies, which reverted to the Crown at the death of the tenant.

Thus Littleton speaks of Tenants in fee simple, Tenants for life, Tenants at will, Tenants by copy, Tenants for terms of years, joint Tenants, Tenants in common, Tenants by grand serjeanty ; and the index or tabula says—'The first book is of Estates which men have in lands and tenements,' and in p. 1 he says—'For these words (his heirs) make the Estate of inheritance.' So in B. III. c. 2—'Of Estates upon condition,' he says—'estates which men have in lands or tenements upon condition are of two sorts,' and so on in many other passages. Littleton would certainly never have dreamt of applying the word Estate to the land itself.

So Bacon says—'Property of lands by conveyance is first distributed into **Estates** for years, for life, in tail, and fee simple. These **Estates** are created by word, by writing, or by record.'

An **Estate** is therefore always a **Right** of an inferior order to Property : it in reality means a **Lease** : as Bacon says—'For Estates for years which are commonly called **Leases** for years. Such Interests or Estates in land were always given as the fee or reward for services rendered to the Crown.' So Bacon also says—'The last and greatest Estate of lands is fee simple, and beyond this there is none of the former for lives, years, or entails, but beyond them is fee simple. For it is the greatest, last, and uttermost degree of Estates in land.'

The true meaning of Estate, therefore, is a **Lease** or **Right** to use a thing derived from a higher power for which some service is given, which is *feudal* property : and an Estate in fee simple means a perpetual lease of lands or tenements, and is only in strictness applicable to land.

The true meaning of the word Estate is also shown in the *Tempest*, where Iris says—

A contract of true love to celebrate,  
And some donation freely to *Estate*  
On the blessed lovers.

So *Ægeus* in *Midsummer Night's Dream* says—

And all my Right of her  
I do *Estate* unto Demetrius.

So *Oliver* in *As You Like It* says—‘All the revenue that was old Sir Rowland’s will I *Estate* upon you.’

**Farm** : another example is the word **Farm**. Most persons think that a *Farm* means a piece of land, and that a good farmer is a good agriculturist : and that to farm well means to till the land well. All this, however, is an error. The word **Farm**, like *Estate*, means a **Lease**. It is called *Farm* from *firmus*, fixed ; because the sum to be paid for the use of the land is fixed. Whenever a person takes a Lease of anything capable of yielding profits, and, upon agreeing to pay a *fixed* sum, is allowed to appropriate all the remaining profits to himself, it is termed a **Farm**. Thus, in many countries it used to be the custom to Farm the taxes. The words **Farm** and **Estate** therefore mean really **Leases**, and are simply **Rights**.

**Tithes** : so also Tithes are not the produce of the land or personal industry to which the parson has the Right : but they are the **Right** itself which the parson has to demand the produce.

**Rent** : so the word Rent does not mean the money or the produce itself paid for the use of lands, houses, and other things. Rent, or *Reditus*, is the mere **Right** which the proprietor of such things has to demand compensation for their use from the person to whom their use is granted. It is a mere Annuity or Right to demand a series of payments for the continuous use of these things. Formerly the Right to the interest of money lent was also called Rent.

**Annuity** : so the word Annuity is not the sums of money periodically paid : but the **Right** to demand them : and is quite separate from the money actually paid.

**Funds** : this is a popular name for the **Rights** which persons

have who have advanced money to the Government to receive annual payments. This, however, is a mere popular name : the legal name is **Bank Annuities**.

**Credit or Debt** : so also a Credit or a Debt is the **Right** which a person has to demand a sum of money from another person : and not the Money itself which is due.

**Shares** in Commercial Companies are the **Rights** which the persons who have subscribed to the Capital have to participate in the Profits earned by the Company.

So a Fishery, Shootings, Turbary, Tolls, Ferries, are not Rights to actual fish, game, turves, money's : but the **Rights** to receive them.

#### **Jurisprudence is the Science of Rights**

**14.** Several eminent jurists, Ortolan, Lord Mackenzie, and others, have observed that Jurisprudence is the Science of Rights. When a person has the Property in anything, it is necessarily implied that every one else is prohibited from infringing his Right of enjoying the subject, his Property, uninjured : and if any one infringes this legal Right, the Proprietor has an action for damages against the wrongdoer.

Jurisprudence consists in ascertaining, defining, and protecting Rights. Ortolan observes that Jurisprudence has nothing to do with the **Things** themselves : but only with the **Rights** to them. So says Lord Mackenzie—' Natural Philosophy considers things according to their physical properties, Law regards them as the objects of **Rights**.'

An **Injury** (*Injuria*) is the infringement of a legal Right. In all actions for damages the action is not for the damage done to the thing itself : but for the infringement of the owner's legal Right to enjoy the thing in a perfect state.

If I drive my carriage against the carriage of another person and damage it, the action does not lie for the actual damage done to the carriage itself : but for the infringement of the owner's legal Right to enjoy the carriage in a perfect state.

If there is no Right in the thing, there can be no Injury, or infringement of a Right, and no Right of action.

In many cases a person may damage another person's Property, without any Injury, or Infringement of his legal Right.



If one person keeps an hotel or shop, another person may set up a rival hotel or shop, and draw away custom from his rival. This may be a *damage* done to the first person ; but it is not an **Injury**, or the infringement of a legal Right : because one person has as much Right to keep an hotel or a shop as another : and the public may go to which hotel or shop they please.

So if one person writes a book on any subject, any one else has an equal Right to write a better one if he can ; and so he may damage the sale of the first : but it is no injury or infringement of a legal Right. The public has the Right of choice between the rival books, and if it chooses to prefer one book to the other, it is no injury. Such a case as these is termed *damnum absque injuriâ* : because it is a damage done, but it is not the infringement of any legal Right : and it is not the ground of any Right of action.

So a merchant's character, which is usually called his **Credit**, is Property of great Value : and if any one spreads slanderous reports about it, it damages his Power of Purchasing, which is a serious injury, and is the ground of an action.

**Economics is the Science which treats of the Exchanges  
of Rights**

**15.** As Jurisprudence is the Science which treats exclusively about Rights, and not about Things, so **Economics** is the Science which treats exclusively about the **Exchanges of Rights**, and not the **Exchanges of Things**.

Now, there are **three** kinds of Rights or Property, which can be bought and sold, or whose *Value can be measured in Money*.

**I. Corporeal or Material Property or Rights.**—There may be a Property or Right in some specific material substance which is already in existence: and has come into the actual possession of the Proprietor. This species of Property in Roman and English Law is termed **Corporeal Property**, because it is the Right to some certain *corpus*. It is also called **Material Property** because it is the Right to certain specific **Matters**.

Hence we term this species of Property **Corporeal** or **Material Wealth**.

II. **Immaterial Property**. The Property which a man has in his own mental and intellectual Qualities ; in his own Labour ; or in his capacity to render service of any sort. As Smith says — ‘The Property which every man has in his own Labour, as it is the original foundation of all other Property, so it is the most sacred and inviolable.’

Now a person may sell the Right to demand some Service or Labour from him. As all these services, though they require some bodily instrument to give effect to them, are in reality operations of the mind, we may call them **Immaterial Property**, or **Immaterial Wealth**, as J. B. Say, the French Economist, does.

III. **Incorporeal Property**.—There is, lastly, a third kind of Property, or Right, wholly severed and separated from any specific *corpus*, or matter in possession. It may either be in the possession of some one else at the time, and may only become our property at some future time : or it may not even be in existence at the present time. Thus we may have the Right or Property to demand a sum of money from some person at some future time. That sum of money may no doubt be in existence : but it is not in our possession : it may not even be in the possession of the person bound to pay it. It may pass through any number of hands before it is paid to us. But yet our Right to demand it is present and existing : and we may sell or transfer it to anyone else for money.

We may also have a Right to something which is not yet even in existence, but will only come into existence at some future time. Thus those who possess land, cattle, fruit trees, &c., have the Right or Property in their future produce. This produce is not in existence at the present time : it will only come into existence at a future time : but the **Right or Property** to it when it does come into existence is present and existing : and may be bought and sold or exchanged like a Right to any material product. This species of Property is called in Roman and English Law **Incorporeal Property**, because it is a Right, but it is separated from any specific *corpus*.

Each of these kinds of Rights or Property may be bought

and sold, or exchanged, and are therefore called *Pecunia, Res, Bona, Merx*, in Roman Law: *χρήματα, ἀγαθά, οἶκος, πράγματα*, in Greek Law: 'goods and chattels' and 'vendible commodities' in English Law: and **Wealth** in Economics.

Hence the Science of Economics treats about Wealth in its widest extent: and all the fundamental conceptions of Economics must be enlarged and generalised so as to comprehend all these *three* orders of Rights.

*All Exchanges are of Rights against Rights*

16. Hence we find that the true meaning of the word **Wealth** is an **Exchangeable Right**: and these three orders of Rights may be exchanged in **six** different ways.

1. The Right or Property in a Material thing may be exchanged against the Right or Property in another material thing—as the Property in so much Gold may be exchanged against the Property in so much Corn.

2. The Right or Property in a material thing may be exchanged against the Right to demand so much Labour or Service—as when the Property in so much Gold is exchanged against the Right to so much Labour or Service.

3. The Right to a material thing may be exchanged against the Right to have something paid or done at a future time—as the Right to so much Gold may be exchanged against a Bill of Exchange, or a Copyright.

4. The Right to one kind of service may be exchanged against the Right to another species of service.

5. The Right to a certain amount of Labour may be exchanged against the Right to demand Money—as when Labour is paid for by a Bank note, Cheque, or Bill of Exchange.

6. One Right to demand money may be exchanged against another Right to demand money—as when a banker buys one debt, such as a Bill of exchange, by creating another debt, such as a Credit in his books.

Thus it is seen that all Exchanges are the exchanges of Rights against Rights: and these six kinds of exchange constitute the Science of Commerce, or **Pure Economics**.

*On the Application of the Positive and Negative Signs to  
Property*

**17.** Economic Quantities or Economic Rights are then of three distinct orders, (1) Rights or Property in some material substance which has already been acquired: (2) Rights or Property in Labour or Service: (3) Rights or Property in something which is only to be acquired at some future time.

Now we can absolutely divest ourselves of the Property in the first order of Economic Quantities.

In exchange for some reward we can transfer to some one else the Right to command our faculties or intellectual qualities for some limited period or on a special occasion.

But though we may receive a reward for exercising our faculties in some person's service, we do not part with them: we may sell our knowledge, but it is not gone away from us. Like a candle which communicates light to others, it does not diminish our own light: a man may sell his instruction, but it does not diminish his own store.

The third species of Economic Quantities are intangible and invisible like the second species: but they are transferable like the first species: and when we exchange or sell them we divest ourselves absolutely of our Property in them, as we do of the first species.

**18.** Now we observe that the two species of Economic Quantities of which we can absolutely divest ourselves are **Inverse** or **Opposite** to each other. Property, like Janus, has two faces placed back to back. It regards the **Past** and the **Future**. We may have the Right to a thing which *has already* come into possession, as well as the Right to a thing which *will* only come into our possession at a *future* time. Property, therefore, is of **Opposite** qualities.

Now, in all mathematical and physical Sciences it is invariably the custom to denote *Similar* Quantities but of *Opposite* Qualities by *Opposite* Signs. Hence, as a matter of simple convenience, and following the invariable custom in Physical Science, if we denote one of these kinds of Property as **Posi-**

**tive**, we may as a distinguishing mark denote the other as **Negative**.

The important consequences that flow from this notation will be explained hereafter. We shall simply observe at present that if we denote Property in a thing which *has been* acquired in time *past* as **Positive**, we may denote Property in a thing which is *to be* acquired in time *future* as **Negative**.

Now, Property in a thing which *has been* acquired is Corporeal Property : and Property in a thing which *is to be* acquired is Incorporeal Property. Hence, if we denote Corporeal Property by the Positive Sign, it is strictly in accordance with all Physical Philosophy to denote Incorporeal Property by the Negative Sign.

And as in all Mathematical and Physical Sciences the whole Science comprehends both Positive and Negative Quantities, so the whole Science of Economics comprehends both Positive and Negative Economic Quantities : or both Corporeal and Incorporeal Property. By this means we double the field of Economics as it is usually treated : and we do in Economics exactly what those did in Mathematics and Natural Philosophy who introduced Negative Quantities : and by this means we are enabled to obtain the solution of problems which all preceding Economists had given up in despair.

#### *On the Classification of Property*

**19.** We shall now show the practical convenience which arises from the distinction of Economic Quantities as Positive and Negative : or Property in a thing which has actually come into possession, and Property in a thing which is only to come into possession at a future time. For many species of Property are of a mixed nature : that is the entire Property in them consists partly of Corporeal Quantities, and partly of Incorporeal Quantities.

**Property in Land** is the highest Property of all : and to understand the nature of Property in Land is the grammar of Property in general.

Things differ in their use according to their nature : some perish in the use : some perish from causes independent of

their use : some are in a state of complete existence, and do not perish, and they give the means of complete enjoyment, as statues, gems, &c.

Land is indestructible in its nature : its use is unlimited in duration : and constant and uniform in its quality.

Now, suppose we purchase an estate in Land for the sum of £100,000, where is the Value for our money? Does it consist in things which are already in existence? The veriest tiro would answer—Certainly not. Where then is the equivalent for the purchase money?

When we purchase an estate in land, we purchase, not only the Right to the existing products of the land and labour, such as the houses, the timber, the crops on the ground, but also the Right to receive its annual products for ever : That is to a series of products which will only come into existence at definite intervals of time for ever. Thus Property in Land consists of two perfectly distinct parts : the Property in the products of the *past*, together with the Property in the products of the **Future**—say £3,000 a year for ever.

Thus Property in Land may be conveniently denoted thus—

Existing products of Land (+) *together with*—£3,000, - £3,000, - £3,000, &c. for ever.

Where the Positive sign denotes the products which have already come into existence and the Negative sign denotes the products which will only come into existence year by year for ever.

But though the yearly products of the land will only come into existence at future intervals of time, the Right or Property in them when they do come into existence is Present, and may be bought and sold like any material chattel, such as a table, a chair, or so much corn. That is to say, each of these annual products for ever has a **Present Value** : and the purchase money of the Land is simply the **Sum** of the **Present Values** of this series of future products for ever.

Again, although this series of future products is infinite, a simple Algebraical formula shows that it has a finite limit : and that finite limit depends chiefly upon the current average **Rate** of Interest. When the usual Rate of Interest is 3 per cent., the total Value of Land is about 33 times its annual value: conse-

quently 32 parts out of 33 of the total Property in Land is Incorporal: the remaining one part only being Corporeal.

Of course Property in Land in some parts of the country may be increased above its usual rate, and in other parts of the country may be depressed below its usual rate, from various local circumstances.

Now, when a purchaser has bought an estate in Land, it may be said without any very great metaphor that it *owes* him a series of annual payments for ever: as he bought it merely on the *belief*, or expectation, that he would receive these products. Hence we may call this Right to receive the *future* products of the Land the **Credit** of the Land. And by the notation we have adopted it is a **Negative** Economic Quantity.

Many Banks in central Europe have been founded for the purpose of making advances to cultivate land, on the principle of demanding an annual instalment of repayment out of the products of the Land. These are called Banks of Credit Foncier, or Banks of **Land Credit**.

**Personal Credit.**—Now, a man exercising any profession or business is an Economic Quantity analogous to Land. He may have accumulated a quantity of money as the fruits of his *past* industry: but over and above his accumulated money he possesses his skill, his abilities, his character, and in short his **Capacity** to earn profits in the *future* as he has already done in the *past*, and of course he has a Property in the expected *future* profits of his industry.

And there are two ways in which he may trade. He may trade with the Money he has already acquired: or he may purchase goods by giving in exchange for them the Right or Property to demand payment at a future time out of the profits which are to be earned in future. Personal Character used in this way as a Purchasing Power is in popular language termed **Credit**: and as we have seen that **Wealth** is **anything** which has **Purchasing Power**, it evidently follows that **Money** and **Credit** are equally **Wealth**.

This must suffice here to indicate the origin and nature of Credit, which will be more fully investigated in a future chapter.

**The Goodwill** of a business.—When a trader has established a successful business of any sort, a calculation may be made of

what the expected profits may be. And the Right to receive these future profits is a recognised article of commerce, and may be sold in addition to the goods actually existing in the shop. It is called the **Goodwill** of the business. It is the *emptio spei* of Roman Law. This Property is the result of the trader's skill and labour : and it is manifestly Incorporeal : and lies wholly in the future, and is therefore **Negative**.

**A Practice.**—When some kinds of professional men have established a reputation, the expectation of the future profits of their business is a Valuable Property which may be sold. It is called a **Practice**. Nothing is more usual than for a young doctor, surgeon, or solicitor to buy a Practice as the readiest mode of getting into business. This is also the *emptio spei* ; and is analogous to the Goodwill of a business.

**Copyright.**—When an author or an artist has produced successful works, the Laws of all civilised countries give them the exclusive Right to the profits to be made by multiplying copies of such works by printing, engraving, or representation. The books or engravings already printed are the corporeal results of past labour : but the Right to receive the future profits is Incorporeal and may be bought and sold like any material chattel. This is also the *emptio spei* : it lies wholly in the future : and is there **Negative**.

**Patents.**—A Patent bears exactly the same relation to mechanical inventions that Copyright does to works of literature and art. The machines actually existing are the produce of past labour : the Patent is the exclusive Right to receive the profits to be made by constructing and selling machines in the future.

**Shares** in Commercial Companies—When persons subscribe to the Capital of a company, the money they pay in belongs to the Company, and they receive in return Certificates entitling them to share in the future profits to be made by the Company. Hence the Capital of the company is Corporeal, and the produce of past labour ; the Shares are Incorporeal and the Right to receive future profits : and therefore **Negative**.

**The Funds.**—The State often wishes to borrow Money from its citizens : and in exchange for the Money lent it gives the lenders the Right to demand a series of future payments out of



the future revenue. These Rights are in common parlance termed the **Funds**.

There are besides several other kinds of Incorporeal Property, such as Tithes, Ground Rents, Tolls, Ferries, &c., and Annuities which will be more particularly described in a future chapter.

*The Totality of Transferable Property*

20. We may therefore exhibit the Totality of Transferable Property in the following form :—

Property consists of		
Property in the Produce of the past : Corporeal Property	Present Time o	Property in the Produce of the future : Incorporeal Property
+		—
Lands, Houses, &c. . . .		Annual Income for ever
Money already earned by a Merchant . . . . .		His Credit
Premises, Stock of goods in a shop . . . . .		The Goodwill
Money already earned by a Professional Man . . . .		The Practice
The printed copies of books, &c. . . . .		The Copyright
Machines already made . .		The Patent
The Capital of a Commercial Company . . . . .		The Shares
		Annuities of all sorts : The Funds : Tolls : Ferries : Ground Rents, &c.

Now each kind of Property may be bought and sold, and is therefore Wealth, as declared 1,300 years ago in Roman Law. And by including both species of Property under the term Wealth we double the field of Economics : and give it the same extension that introducing Negative Quantities does in Mathematics and Natural Philosophy.

*Examination of the Arguments alleged against admitting  
Immaterial and Incorporeal Elements into Economics*

21. Having now taken a general survey of all the different species of Property, we must briefly examine the arguments of the Physiocrats and other Economists against admitting Immaterial and Incorporeal Elements into Economics.

The ancients, with true scientific instinct, having selected Exchangeability as the sole essence and Principle of Wealth, searched for and enumerated all the distinct kinds of things which can be bought and sold or exchanged, or whose value can be measured in money : they found that there are three distinct orders of such Quantities : and they expressly included them all under the titles Pecunia, χρήματα, &c.

The first school of Economists, however, adopting Exchangeability as the essence of Wealth, as the ancients did, strictly confined the term to the **material** products of the earth : and refused to admit Labour and Rights to be Wealth : although they admitted that there is a commerce in them : because they said that to admit Labour and Rights to be Wealth would be to allege that Wealth can be created out of Nothing : and they repeated a multitude of times that the earth is the only source of Wealth, because *Nothing can come out of Nothing*.

The real difficulty which impedes the true comprehension of the subject is very similar to that which for a considerable time obstructed the reception of the Newtonian doctrine of gravitation on the Continent. It had been laid down as a dogma that a body cannot act where it is not. When, therefore, the Newtonian doctrine of central forces was published, showing that the motions of the planets might all be accounted for by certain forces emanating from the sun and themselves, the opponents of the system maintained that it violated the fundamental maxim that a body cannot act where it is not : and several of the most eminent continental philosophers refused to receive it for that reason.

A similar dogma is at the root of the difficulty which some writers feel in admitting Immaterial and Incorporeal Elements into Economics.

Many thousands of years ago a materialistic philosophy

sprang up on the banks of the Ganges. Kapila is said to have been the author of the Sankhya philosophy which invented the dogma that *Nothing can come out of Nothing*, in order to disprove the existence of a Deity. This philosophy migrated from the banks of the Ganges to those of the Ilissus and the Tiber, and is familiar to us under the names of Leucippus, Anaxagoras, Parmenides, Democritus, Epicurus, Lucretius, and scores of others.

The fundamental dogma of Lucretius, the hierophant of the materialistic philosophy, is that *Nothing can come out of Nothing*.

Nullam rem e Nilo gigni divinitus unquam

Nil igitur fieri de Nilo posse fatendumst.

Moreover that *Nothing can go back into Nothing*.

Huc accedit uti quæque in sua corpora rursus  
Dissolvat Natura : neque ad Nihilum interimat Res

Nullius exitium patitur Natura videri.

And this is the constant refrain of the Lucretian philosophy, that *Nothing can come out of Nothing* and *Nothing can go back into Nothing*.

Nunc age Res quoniam docui non posse creari  
De Nihilo : neque item genitas ad Nil revocari

At quoniam supra docui Nil posse creari  
De Nihilo : neque quod genitumst ad Nil revocari  
Esse immortalis primordia corpore debent.

And this is the very doctrine that Physicists maintain to the present day. Chemists delight to expatiate to their audience on the indestructibility of all things. How seeming destruction is merely the dissolution of present combinations of atoms to reappear in new forms and new combinations in perpetual succession.

But Economics and Law confound the best settled doctrines of the sages of old. Some Economists certainly have declared that man can call nothing into existence : and that all Wealth comes from the earth. That all Wealth is but the particles of matter : and that all that man can do is to rearrange them, or

place them in a new position and let nature do the rest. But their own doctrines, their own definitions, their own books, confound all such notions. Economists, with scarcely an exception, are now agreed that, whatever can be exchanged, whatever can be bought and sold, is Wealth. Twenty centuries ago the author of the *Eryxias* irrefragably proved that **Knowledge** is **Wealth**. Aristotle, as we have seen, defines Wealth to be **all things** whose *Value can be measured in money*. Smith, Senior, Say, Whately, Mill, all admit the intellectual qualities and talents of the people to be Wealth.

Knowledge, therefore, by the very generality of the definition, and the consent of every modern Economist of note, is Wealth. And where does knowledge come from? And what is it formed out of? Does it come from the earth? And is it formed out of the materials of the globe? Few probably would maintain that. All that we know is that knowledge originates in the mind. Knowledge is formed *in* the Mind: by great Labour very often: but is it formed out of the materials of the Mind? And if so, what is the Mind composed of? Does it come from the earth? Are we to have an atomic theory of knowledge or of the Mind? Will some metaphysical Dalton revive the theory of Lucretius, that knowledge, or the human Mind, is composed of indestructible primordial atoms?

πολλὰ τὰ δεινὰ, κοῦδὲν ἀνθρώπου δεινότερον πέλει.

But this same knowledge—Whence cometh it? What is it? Whither goeth it?

We know not—Do our readers?

Natheless it is **Wealth**: and therefore it is within the domain of the Economist. It may be bought and sold: it may be *Valued in money*: it may be accumulated: it may be handed down from age to age; like any material chattel. It is the produce of Labour just as much as any material product. The acquisition of knowledge is the acquisition of Wealth: and the loss of knowledge is the destruction of Wealth. And is the loss or destruction of knowledge the dissolution of indestructible primordial atoms?

Here we have vast masses of Wealth, and the question is where does it come from? and what is it composed of? and

there can be but one answer to the question : either knowledge is composed of indestructible primordial atoms : or it is not. If it be so, then of course the formation of knowledge is not the creation of Wealth out of Nothing. But unless we are prepared to admit that—and who is?—the formation of knowledge must be the creation of Wealth out of Nothing : and the loss or destruction of knowledge must be the **Decreation**, or the return of Wealth into Nothing !

Here, then, we have enormous masses of what every Economist now-a-days admits to be Wealth formed out of the absolute Nothing which overthrows the doctrines of the Physical Philosophers that *Nothing can come out of Nothing*, and that *Nothing can go back into Nothing*. The doctrines of these Economists also are overthrown who say that all Wealth comes from the earth, and is formed out of the materials of the globe : and that Man cannot create Wealth. For here we have vast masses of wealth which manifestly do not come from the earth, and are created by man.

Hence it is manifest that there is another source of Wealth besides the earth, namely—the **Human Mind**.

**22.** But the third species of Economic Quantities do not originate in the Earth nor yet in the Mind. And here again Lucretius is at fault. For he says that there is nothing besides the Void which is separated from something material.

Omnis ut est igitur, per se Natura duabus  
Consistit rebus ; nam **Corpora** sunt et **Inane**.

Preterea nihil est quod possis dicere ab omni  
Corpore sejunctum, secretumqu' esse ab **Inani**.

Et facere et fungi sine **Corpore** nulla potest **Res**.

Ergo præter **Inane** et **Corpora**, tertia per se  
Nulla potest **Rerum** in numero Natura relinqui.

From these lines it is clear that Lucretius did not understand the nature of Public Debts, Bills of Exchange, Debts, and other kinds of Incorporeal Property, or he would have found it necessary to modify this part of his philosophy. If Lucretius

had applied to his friend Cicero, or any of the Roman Lawyers of his day, they would have told him that there were abundance of **Res Incorporeales** which 'faciebant' and 'fungebantur' without any 'corpus' at all. We have seen that mere abstract Rights are classed as Wealth and Property, in Roman Law, and in every system of Law. And where do these abstract Rights come from? and what are they formed out of? Do they come from the Earth? are they formed out of the materials of the globe? Are they too formed of indestructible primordial atoms? And when these Rights are extinguished, is it the dissolution of certain material particles? Are these Rights even the products of Labour or of the Human Mind?

How are these Rights created? By the mere *fiat* of the Human Will. And how are they extinguished? Equally by the *fiat* of the Human Will. But these Rights may be bought and sold or exchanged: their *Value may be measured in money*: they form the subject of the most colossal commerce in modern times. Here, then, we have Valuable products created out of the Absolute **Nothing** by the mere *fiat* of the Human Will. And when they are extinguished they are Valuable products **Decreated** into **Nothing** by the mere *fiat* of the Human Will.

Hence there is a third source of Wealth besides the Earth and the Human Mind, namely—the **Human Will**. And as a matter of fact enormously the largest amount of Economic Quantities in this great commercial country consist of mere abstract Rights, the pure creation of the Human Will.

We now see the answer to the doctrine of the Physiocrates, that all wealth must be material and formed out of the materials of the globe, because *Nothing can come out of Nothing*. We say that we are not concerned with **material** substances at all—but only with **Rights** to them. Some philosophers deny the existence of a Deity, other philosophers deny the existence of matter: but no philosophers will ever have the hardihood to deny that men can create, sell or exchange, and annihilate Rights: and we have seen that **Wealth** is nothing but **Exchangeable Rights**.

*On the Distinction between the Jus in Rem or in Re,  
and the Jus ad Rem or in Personam*

23. We must now notice a distinction in different kinds of Property or Rights of great importance.

Rights are of two sorts—

1. The Property or Right to a specific chattel, termed a **Jus in Rem** or **in Re** in Roman Law, without being related to any one else : called also **Dominium**. When a person has such a sole and exclusive Right in any chattel, he may sell or transfer it to any one he pleases. Money, cattle, timber, &c., and other goods are subject to this kind of Property : and hence the Proprietor may freely alienate or sell and transfer his own money, cattle, timber, to any one else he pleases.

2. Property held in **Contract** or **Obligation**, called in Roman Law **Jus ad Rem** or **in Personam** : where a person has a Right not to any specific thing, but only against a **Person** to pay or do something.

A simple example of this kind of Property or Right is the Contract or Obligation of Debt : where one person, the Creditor, has the Right to demand a sum of money from some **Person**, the Debtor. In such a case the Creditor has only an abstract Right of action against the **Person** of the Debtor to compel him to pay a sum of money : but he has no Right to any particular sum of money in the Debtor's possession. In fact, the Right of the Creditor against the Debtor exists whether the Debtor has any money or not.

The former kind of Rights are called **Real Rights**, or **Corporeal Rights**, or **Property**, because they are the Rights to certain specific things : the latter are called **Personal Rights** ; because they are mere abstract Rights against the person, but wholly severed from any specific chattel. They are one species of **Incorporeal Property**.

24. But Property held in Contract or Obligation is of two kinds—

(a) Where each party to the Contract has Rights to receive as well as Duties to perform ; such as the *Nexum* or Obligation

between Lord and Vassal in Feudal Law : or that between Master and Servant at the present time. This is termed a **Bilateral or Synallagmatic Contract.**

(*b*) When there is only a Right to receive on one side, and a Duty to perform on the other : such as the relation between Creditor and Debtor, or between Landlord and Tenant in modern times. This is termed a **Unilateral Contract.**

Formerly it was held universally that whenever Property was held in Contract of either sort, Bilateral or Unilateral, neither party could substitute another person for himself without the consent of the other party to the Contract.

This rule must manifestly hold good in all Bilateral Contracts, where each party has a Duty to perform. When one person agrees to accept a Duty from another person, he is of course satisfied that that person can perform the Duty. But he cannot be compelled to accept any one else to perform the Duty without his own consent.

Thus so long as the Feudal Law retained its pristine rigour neither the Lord nor the Vassal could substitute any one else for himself without the consent of the other party. Each of the parties had Duties to perform : the Vassal to render true and loyal service, and the Lord to render due protection and defence. And neither party could *attorn* the other, or turn him over to any one else without his own consent. So in the case of Master and Servant at the present day. A Master cannot transfer his household to any one else without their own consent, as if they were cattle or slaves. Neither can a Servant substitute any one else in his place without his Master's consent.

The same principle originally held good when the contract was Unilateral, as in the case of Creditor and Debtor. The Creditor could not transfer his Right of action against the Debtor to any one else, because the Debtor never agreed to pay any one except his own Creditor. It is a rule of Law as well as of common sense, that no man can contract for another without his consent. Unless, therefore, the Debtor had agreed with the Creditor that he might transfer his Right, the Creditor had no power to guarantee his Transferee that the Debtor would pay him. Accordingly, both in Roman and English Law, for a long period the Creditor could not transfer his Right of action



against his Debtor without the Debtor's consent, so as to enable the Transferee to sue the original Debtor.

But nevertheless, though this may be true in theory, the party in an Obligation of this form, who has the Right to demand, soon begins to insist upon the power of transferring this Right like any other property. And there is very good reason for this: because in the Obligation or Contract of Debt there is manifestly a strong distinction between the two parties, the Creditor and the Debtor. The Debtor cannot substitute another Debtor for himself, because the Creditor may not have the means of knowing the solvency of the substituted Debtor: as, for instance, no one can compel his Creditor to take payment of a Debt in the notes of a country banker. But the case of the Creditor is different. If a person really owes a debt and has the means of paying it, it cannot make the slightest difference to him whether he pays it to A or to B; so long as he can get a valid discharge for it, and is not called upon to pay it twice over.

Hence, while the assignment of a new Debtor might seriously prejudice the Creditor, the assignment of a new Creditor can be no real prejudice to the Debtor.

In A.D. 224 the Emperor Alexander Severus enacted that a Creditor might sell his Right of action without the consent and without the knowledge of the Debtor: and ever since then all Rights of action of every sort have been as freely saleable as any other Chattel on the continent.

By a recent Act this principle has been adopted in England, and on November 1, 1875, the sale of Debts became absolutely free in England.

These Rights against Persons, or *Jura in personam*, are one form of Incorporeal Property: and they were the principal form known to the Roman Lawyers: as they are always Rights against definite Persons, they may be called **Personal** or **Nominate Rights**: but in modern times another form of Incorporeal Property has grown up and attained colossal dimensions, which are mere abstract Rights, but not Rights against any definite Persons; they are mere Rights to receive expected profits: of this form of Incorporeal Property are Copyrights, Patents, Shares, the Goodwill of a business, &c. They are the *emptio*

*spei* of Roman Law. And as they are Rights, but not Rights against any definite Person, they may be called **Impersonal or Innominate Rights.**

The Proprietor of this class of Rights may sell and transfer them to whomsoever he pleases: as there is no one's consent required: hence they belong to the class of Property held in Dominion.

It is to be observed that in Corporeal Property the Right and the specific *Corpus* cannot be separated: they cannot be bought and sold separately from one another: they must always go together: hence they form but *one* Property. But in Incorporeal Property the mere abstract Right itself is absolutely separated from any specific *corpus*: they are bought and sold separately: and therefore the mass of Incorporeal Property is itself independent exchangeable property: and, in fact, in this country the mass of Incorporeal Property exceeds many times the mass of Corporeal Property.

#### *On Property or Rights as Goods and Chattels*

**25.** We have seen that Property, including abstract Rights of all sorts, is included under the terms *Pecunia*, &c., in Roman Law, and under *χρήματα* in Greek Law: because it can all be bought and sold. For the same reason abstract Rights are included under the terms '**Goods,**' '**Chattels,**' '**Goods and Chattels,**' '**Vendible Commodities,**' in English Law.

Thus Blackstone says:—'For it is to be understood that in our Law **Chattels** (or **Goods and Chattels**) is a term used to express any property, which, having regard either to subject matter or the quantity of interest therein, is not freehold.

'Property, or Chattels-personal, may be either in possession or else in action. . . . Property in action is where a man has not the enjoyment (either actual or constructive) of the thing in question, but merely a right to recover it by a suit or action at law.'

Thus all such Property as Debts, Bank-Notes, Bills of Exchange, the Funds, Shares in commercial companies, Copyrights, Patents, &c., are Goods and Chattels in English Law, just as much as any material Chattels.

Thus in a case Lord Justice Blackburn spoke of the Funds as **vendible commodities**.

So also Debts are included under the term **Movable Rights** in Scotch Law.

#### *Definition of Value*

**26.** Economic Quantities are, as we have seen, of three distinct orders or species, any one of which may be exchanged against any of the others.

Now, if at any time any Economic Quantity A can be exchanged for any other Economic Quantity B, then each of these two Quantities is termed the **Value** of the other.

Thus Aristotle says:—

*ἡ δ' ἀξία λέγεται πρὸς τὰ ἔκτος ἀγαθά.*

*Now, the term Value is used in reference to external things.*

So the Digest says—'Res tanti valet quanti vendi potest.'

'The Value of anything is what it can be sold for.'

We have, then, this Definition—

*The Value of any Economic Quantity is any other Economic Quantity for which it can be exchanged.*

Hence any Economic Quantity has as many Values as other Quantities it can be exchanged for: and if it can be exchanged for nothing, it has no Value.

Value therefore by the very definition requires two objects, just in the same way as Distance and Ratio require two objects. A single object cannot have Value any more than a single object can be distant or equal. If we are told that an object is distant or equal, we immediately ask—Distant from what? or Equal to what? So, if it is said that an object has Value, we must always ask—Value in what? And it is clear that as it is absurd to speak of a single object having Absolute or Intrinsic Distance or Equality, so it is equally absurd to speak of any object having Absolute or Intrinsic Value.

This must suffice here for the Definition of Value. The complete Theory of Value will form the subject of the next chapter.

#### *On Money and Credit*

**27.** There is one species of Economic Quantity of such great importance that we must devote special attention to it.

We have abundant evidence that in the primitive ages of the world there was no such thing as Money. When persons traded they exchanged the products directly with each other. Thus we have Iliad vii. 468 :

Νῆες δ' ἐκ Λήμνιοι παρέστασαν οἶνον ἄγουσαι

ἔνθεν ἄρ' οἰνίζοντο κάρη κομόωντες Ἀχαιοί,  
 ἄλλοι μὲν χαλχῶ, ἄλλοι δ' αἰθωνι σιδήρῳ,  
 ἄλλοι δὲ ῥινοῖς, ἄλλοι δ' αὐτῆσι βόεσσιν,  
 ἄλλοι δ' ἀνδραπόδεσσιν.

From Lemnos' isle a numerous fleet had come  
 Freighted with wine . . . . . All the other Greeks  
 Hastened to purchase, some with brass, and some  
 With gleaming iron : some with hides,  
 Cattle and slaves.

This exchange of products against products is called **Barter**: and the inconveniences of this mode of trading are palpable. What haggling and bargaining it would require to determine how much leather should be given for how much wine! how many oxen or how many slaves! Some ingenious person would then discover that it would greatly facilitate traffic if the things to be exchanged could be referred to some common measure of Value. There are several passages in the Iliad and Odyssey which show that even while traffic had not advanced beyond barter, such a standard of reference was used. We find that various things were frequently estimated as being worth so many *oxen*. Thus in Iliad ii. 448, Pallas's shield, the *Ægis*, had 100 tassels each of the Value of 100 oxen. In Iliad vi. 234, Homer laughs at the folly of Glaucus, who exchanged his golden armour worth 100 oxen for the bronze armour of Diomedes, worth 9 oxen. In Iliad xxiii. 703, Achilles offers as a prize in the funeral games in honour of Patroclus, a large tripod which the Greeks valued among themselves at 12 oxen, and to the loser a female slave whom they valued at 4 oxen. But it must be observed that these oxen did not pass from hand to hand like money. The state of barter continued, as it is quite common at the present day to exchange goods according

to their value in money without any actual Money being used. Such a state of things in no way implied the existence or use of Money.

**28.** The necessity for Money arises from a different cause. So long as the things exchanged were equal in value there would be no need for Money. If it always happened that the exchanges of products or services were equal, there would be an end of the transaction. But it would often happen that when one person required some product or service from some one else, that person would not require an equivalent amount of product or service from him : or perhaps even none at all : If then a transaction took place with such an **unequal** result, there would remain a certain amount of product or service due from the one to the other ; and this would constitute a **Debt**—that is to say a Right, or Property, would be created in the person of the one who had received the less amount of product to demand the balance due at some future time : and at the same time there would be the corresponding **Duty** created in the person of the other, who had received the greater amount, to render the balance due when required.

Now, among all nations and persons who exchange this result must inevitably happen : persons want something from others when those others want nothing, or not so much, from them. And it is easy to imagine the inconveniences which would arise if persons never could get anything they wanted unless the persons who could supply these things wanted something in return at the same time.

In process of time all nations hit upon this plan : they fixed upon some material substance which they agreed to make always exchangeable among themselves to represent the amount of **Debt**.

That is if an *unequal* exchange takes place among persons, so leaving a balance due from the one to the other, the person who has received the greater amount of product or service gives a quantity of this universally exchangeable merchandise to make up the balance : so that the person to whom the balance of product was due might get an equivalent from some one else.

Suppose that a wine dealer wants bread from a baker : but

the baker wants no wine or not so much wine from the wine dealer.

The wine dealer takes the bread from the baker, and gives him in exchange as much wine as he wants, and makes up the balance by giving him an amount of this generally exchangeable merchandise equivalent to the deficiency: or if the baker wants no wine at all, the wine dealer gives him the full equivalent of the bread in this merchandise.

The baker perhaps wants meat or shoes, but not wine. Having received this universally exchangeable merchandise from the wine dealer, he goes to the shoemaker or butcher, and obtains from them the equivalent of the bread he sold to the wine dealer. Hence the satisfaction which was due to him from the wine dealer is paid by the butcher or shoemaker.

This universally exchangeable merchandise is called **Money**: and these circumstances show its fundamental nature. Its function is to represent the **Debts** which arise from *unequal* exchanges among men, and to enable persons who have rendered services to others, and have received no equivalent from them, to obtain that equivalent or satisfaction from some one else.

Many species of merchandise have been used for this purpose: but, however different in their form, this is the universal want they supplied: and the true nature of **Money** is to be a **Right** or **Title** to demand something to be paid or done by some one else.

Now when one person takes a piece of **Money** in exchange for products or services, he can neither eat it, nor drink it, nor can he clothe himself with it: it is of no absolute direct use in itself: its sole use is to be a **Right** or **Title** to demand something else, and the person who receives it in exchange for products only agrees to do so because he **Believes** that he can exchange it away again for something he does want whenever he pleases. It is, therefore, what is called **Credit**.

Thus a London merchant, F. Cradocke, in the time of the Commonwealth, says:

‘Having now pointed out the inconvenience of these metals (Gold and Silver) in which the medium of commerce or **Universal Credit** hath formerly been placed. . . .

‘Now that such **Credit** is as good as **Money** will appear if it

be observed that **Money** itself is nothing else but a kind of **Security**, which men receive upon parting with their commodities, as a ground of **Hope** or **Assurance** that they shall be repaid in some other commodity: since no man would either sell or part with any for the best Money but in hopes thereby to procure some other commodity or necessary.'

So also Edmund Burke says of Gold and Silver: 'The two great recognised species that represent the lasting conventional **Credit** of mankind.'

Hence we obtain the Fundamental Conception of **Credit**.

**Credit** is *anything which is of no direct use: but which is taken in exchange for something else, solely on the Belief or Confidence that we have the Right to exchange it away again for something else which we do require.*

**Credit** is therefore the **Right** or **Property** of demanding something to be paid or done by some person. It is the **Right** to a future payment; and it must be carefully observed that it is the Name of a certain species of Right or Property.

29. The subject of Money and Credit is of such fundamental importance, and so much misconception has prevailed, that we must show that a whole series of writers have seen the identical nature of Money and Credit.

Thus Aristotle says—

ὑπὲρ δὲ τῆς μελλούσης ἀλλαγῆς (εἰ νῦν μηδὲν δεῖται, ὅτι ἔσται ἐὰν δεθῆ) τὸ νόμισμα οἶον' Ἐγγυητικὴς ἔστω ἡμῖν· δεῖ γὰρ τοῦτο φέροντι εἶναι λαβεῖν.

'But with regard to a future exchange (if we want nothing at present, that it may take place when we do want something). Money is, as it were, our **Security**. For it is necessary that he who brings it should be able to get what he wants.'

So an old pamphleteer in 1710 saw the same truth. He says:—'Trade found itself unsufferably straightened and perplexed for want of a general specie of a complete intrinsic worth as the medium to supply the defect of exchanging, and to *make good the balance*, where a nation or a market or a merchant demands of another a greater quantity of goods than either the buyer hath goods to answer, or the seller had occasion to take back.'

It is one of the especial merits of the Physiocrats that they clearly saw the true nature of Money and restored it to its true position.

So Baudeau, one of the most eminent of the Physiocrats, says—

‘This coined Money in circulation is nothing, as I have said elsewhere, but effective **Titles** on the general mass of useful and agreeable enjoyments which cause the well-being and propagation of the human race.’

‘It is a kind of **Bill of Exchange** or **Order**, payable at the will of the bearer.’

‘Instead of taking his share in kind of all matters of subsistence, and all raw produce annually growing, the sovereign demands it in Money, the effective **Titles**, the **Order**, the **Bill of Exchange**, &c.’

So the great metaphysician, Bishop Berkeley, says in his *Querist*—

21. Whether, other things being given, as climate, soil, and the wealth be not proportioned to industry, and this to the circulation of **Credit**, be the Credit circulated by what Tokens, or Marks whatsoever?

24. Whether the true idea of Money, as such, be not altogether that of a **Ticket** or **Counter**?

25. Whether the terms, crown, livre, pound sterling, are not to be considered as exponents or denominations; and whether Gold, Silver, and Paper are not **Tickets** or **Counters** for reckoning, recording, and transferring such denominations?

35. Whether **Power** to command the Industry of others be not real **Wealth**? And whether Money be not in truth Tickets or Tokens for recording and conveying such Power: and whether it be of consequence what material the Tickets are made of?

426. Whether all circulation be not alike a circulation of **Credit**, whatsoever medium—**Metal** or **Paper**—is employed: and whether Gold be any more than **Credit** for so much **Power**?

So also *Queries* 441, 449, 450, 459, 475, and many others.

So Smith says—‘A guinea may be considered as a **Bill** for a certain quantity of necessaries and conveniences upon all the tradesmen in the neighbourhood.’

So Henry Thornton, the eminent banker, says—‘Money of



every kind is an **Order** for goods. It is so considered by the labourer when he receives it, and is almost instantly turned into money's worth. It is merely the instrument by which the purchasable stock of the country is distributed with convenience and advantage among the several members of the community.'

This great fundamental truth was also very clearly seen by Bastiat—'This is now the time to analyse the true function of Money, leaving out of consideration the miners and importation.

'You have a Crown piece. What does it mean in your hands? It is, as it were, the witness and the proof that you have at some time done some work, which, instead of profiting by, you have allowed society to enjoy in the person of your client. This Crown piece witnesses that you have rendered a service to society, and, moreover, it states the Value of it. It witnesses, besides, that you have not received back from society a real equivalent service as was your right. To put it in your power to exercise this Right when and how you please, society, by the hands of your client, has given you an *Acknowledgment* or **Title**, an **Order of the State**, a **Token**, a **Crown piece**, in short, which does not differ from other **Titles of Credit**, except that it carries its Value in itself (?), and if you can read with the eye of the mind the inscription it bears, you can distinctly see these words—"*Pay to the bearer a service equivalent to that which he has rendered to society, value received, stated, proved, and measured by that which is on me.*"

'After that you cede your Crown piece to me. Either it is a present, or it is in exchange for something else. If you give it me as the price of a service, see what follows: your account as regards the real satisfaction with society is satisfied, balanced, closed. You rendered it a service in exchange for a Crown piece: you now restore it the Crown piece in exchange for a service: so far as regards you, the account is settled. But I am now just in the position you were before. It is I now who have done a service to society in your person. It is I who have become its creditor for the value of the work which I have done for you, and which I could devote to myself. It is into my hands therefore that this **Title of Credit** should pass, the witness and the proof of this social **Debt**. You cannot say that I am

richer, because if I have to receive something, it is because I have given something.'

So again he says—'It is enough for a man to have rendered services, and so to have the **Right** to draw upon society, by the means of exchange, for equivalent services. That which I call the means of exchange is **Money, Bills of Exchange, Bank Notes**, and also Bankers. Whoever has rendered a service and has not received an equal satisfaction, is the bearer of a **Warrant**, either possessed of Value, like **Money**, or of **Credit**, like Bank Notes, which gives him the **Right** to draw from society, when he likes, where he likes, and under what form he will, an equivalent service.'

So Mill says—'The pounds or shillings which a person receives weekly or yearly are not what constitutes his income: they are a sort of **Ticket** or **Order**, which he can present for payment at any shop he pleases, and which entitle him to receive a certain value of any commodity that he makes choice of. The farmer pays his labourers and his landlord in these **Tickets**, as the most convenient plan for himself and them.'

It is so clearly understood that Money is in reality nothing more than the **Right** to demand something to be paid or done, that many jurists, such as Vulteius, expressly class it under the title of Incorporeal Property.

Vulteius enumerates among Incorporeal Property—'Nummus in quo non materia ipsa, sed valor attenditur.'—'*Money in which not the Material but the Value is regarded.*'

Gold and Silver Money may therefore be justly termed **Metallic Credit**.

Though the fundamental nature of Money is that it is a mere Right of demanding something, yet the Quantity of matter or stuff which is required to represent any amount of **Debt**, or as the equivalent of any commodity against which it is exchanged, will depend entirely upon the general laws of value.

30. Aristotle, then, and writers of all the modern Schools of Economists, are unanimously agreed as to the fundamental nature of Money. It represents **Indebtedness**, or Services due: it represents the **Rights** which its holders have to demand some product or service. Hence it may be stated as the funda-

mental Axiom of Monetary Science—‘*The Quantity of Money in any country represents the amount of Debt which there would be if there were no Money,*’ and consequently this proposition necessarily follows—‘**Where there is no Debt there can be no Money.**’ The greatest Monetary disasters the world has ever seen have been produced by violating these fundamental axioms.

Different nations have adopted different substances to represent this universal want. The Hebrews, we know, used Silver: although no Money was in use in the time of the Homeric poems, Copper bars or skewers some time afterwards were employed as Money in Greece, which were superseded by the silver coinage of Pheldon. The Æthiopians used carved pebbles: the Carthaginians leather discs with some mysterious substance sewn up in them. Throughout the islands of the Eastern Ocean and many parts of Africa and India shells are still used. In Thibet and some parts of China little blocks of compressed tea serve as Money. Salt is used in Abyssinia; and in the oases of Africa a certain measure of dates called a *hatia* is used as Money. In the last century dried cod was used in Newfoundland: sugar in the West Indies: and tobacco in Virginia. Smith says that in his day nails were used as Money in a village in Scotland. In some of the American colonies, powder and shot: in Campeachy, logwood: and among the North American Indians belts of wampum were used as Money. We read of another people who used cowries for small change, and the skulls of their enemies for large sums. It is said that in 1867 the proprietors in Virginia were reduced to such straits as to use dried squirrel skins as Money.

31. But when we consider the purposes for which Money is intended, it is easily seen that no substance possesses so many advantages as a **Metal**. The use of Money being to preserve the record of services being due to the owner of it for any future time, it is clear that it should not be liable to alter by time. A money of dried cod would not be very likely to keep very long, nor would it be very easily divisible. One of the first requisites of Money is that it should be divisible into very small fragments, so that its owner should be able to get any

amount of service at any time he pleases. Taking these requisites into consideration, it is manifest that there is no substance which combines these qualifications so well as a **Metal**. It is uniform in its texture : and it can be divided into any number of fragments, each of which shall be equal in value to another fragment of equal weight ; and if required these fragments can always be reunited and form a whole again of the aggregate Value of all its parts : which can be said of no other substance. All civilised nations, therefore, have agreed to adopt Metal as Money : and of metals, Gold, Silver, and Copper have been chiefly preferred.

#### **On Credit**

**32.** So long as nations continue in a low state of civilisation all the Credit, or Money, is made of some material substance : but when they advance in civilisation they use Credit of another form.

To revert to the case from which we showed that the necessity of Money originated, that of an **unequal** exchange, suppose that, instead of the general merchandise called money, the Debtor gives the Creditor a simple **Promise** to render the Balance of service due when required. Then the Creditor has the **Right** to demand an equivalent at a future time. But it is only a Right against a *particular* person. Suppose that a person holds a tea merchant's Promise to give five pounds of tea. If the person happens to want tea, and the tea merchant is able to give the tea, such a Promise is exactly equivalent to so much Money. And the Creditor may sell or transfer that Right to demand so much tea for so much bread.

Now that Promise is only the Right to demand a *particular* thing and from a *particular* person : and that person may die, or become insolvent, and may not be able to fulfil his promise. Hence the Value of the Promise is *particular* and *precarious*. The tea is the Value of the promise. To any one who wants tea the Promise is exactly of the same Value as Money. So if any one wants any particular thing, an **Order** for that thing is of exactly the same Value as Money with regard to that thing. If a person wants a shilling's worth of bread : an **Order** for that amount of bread is of the same value as a shilling with

regard to bread : if a person wants a shilling's worth of milk, an **Order** for that amount of milk is of the same Value as a shilling with respect to milk : and so on of everything else. The only difference is that each of these Orders only entitles the owner to get one particular thing : whereas with a shilling he can buy a shilling's worth of bread : or of milk : or of wine : or of anything else he pleases. Hence each of these Orders has only got *one* Value : whereas Money has a multitude of Values. Again, if the person who has made the promise cannot fulfil it, the Promise has lost its Value : but if a person has Money, he can always find some person to give him the equivalent he wants for it. Hence such an Order has only *particular* and *precarious* Value : but Money has *general* and *permanent* Value.

This **Order** or **Promise** or **Right** is what is usually called **Credit** : and it is clearly seen that, though it is of a lower and inferior form, yet it is of the same general nature as Money. And as in Economics we are in no way concerned with the materials of things : and since these Rights or Orders may be exchanged, or bought and sold, equally as well as any material chattels, they are called *Pecunia, Res, Bona, Merx* in Roman Law : *χρήματα, ἀγαθὰ, πράγματα, οἶκος* in Greek Law : goods and chattels and vendible commodities in English Law : and therefore **Wealth** in Economics.

From this it is seen that it is perfectly possible to carry on the exchanges of society without material money. During the late civil war in America gold and silver money entirely disappeared from circulation : and private Tickets, of the nature described above, took its place. Instead of Metallic Money, people had their pockets filled with bread tickets, milk tickets, railroad tickets, and many others. If a man had his hair cut and tendered a dollar in payment, he could not get payment, he could not get change in money, but he received so many **Tickets** promising to cut his hair so many times. In one case we saw in an American paper payment was made in tickets promising to pay strawberries when the season came on.

The whole matter may perhaps be put in a clearer form by this simple consideration. Suppose one person has sold any commodity or done a service to another person, he is evidently entitled to receive either an equivalent service at the same time,

or the Right to demand an equivalent service at some future time. Now this Right may be in two forms, either that of Metallic Money, which is a General Right to demand any equivalent service from the whole mercantile community; or a Promise from that particular person to render an equivalent service when required. Hence in either case the Creditor is entitled to receive a Right, the only difference is that one form of Right is general and permanent, and the other is particular and precarious. But for all that they are clearly of the same Nature. It is seen therefore that Money and Credit are homogeneous Quantities: and that Money is only the highest and most general form of Credit.

The Incorporal Right of action is of course the 'Vendible Commodity,' the 'Goods' or 'Chattel,' and though it can neither be handled or seen, it may be sold or transferred even in that form. But for the sake of convenience it is very usual to write the Promise down on Paper; and then these written Promises are termed **Paper Credit**: and in its simplest form would have the particular service or product it was intended to command stated on the face of it: as we have just seen was done in the American war. Such forms of Credit are by no means unusual in the Southern countries of Europe: and in some rare instances have been known in this country. But such a form limits the utility and exchangeability of the Credit. In this country it is almost invariably the custom to make Paper Credit a promise to pay in Metallic Money, which is the generally received Power of demanding all products and services.

The reason why Paper can supersede Metallic Money is now clear. An order to receive a coat would never serve as a substitute for a coat, because it could not serve the same purpose: an Order to receive bread may be bought and sold, but it could never supersede bread itself, because it cannot serve as food: and so on in other cases. An Order for such things could never be used instead of the things themselves: because they are heterogeneous quantities. But an Order to pay Money may be used instead of Money, because they are homogeneous quantities. A piece of Money is of no more direct use for eating, or drinking, or clothing, than a piece of paper: consequently the exchange of Paper for Money is nothing more than

the exchange of a Particular Right for a General Right. To be useful, Money must be exchanged away just as paper is. Hence if paper can be exchanged for exactly the same things that Gold can, Paper has the same Value as Gold. As the Italians say, *Che oro vale oro è* : that which is of the Value of Gold is Gold.

Now, as we have seen that **Exchangeability** is the sole essence and principle of Wealth, and these Orders or Credits can be bought, and sold, and exchanged just like any other commodities ; it follows that these Credits are Wealth for exactly the same reason that Gold is : The whole mass of these Rights in a country constitute a vast mass of Property : and are the subject of the most colossal commerce in modern times. This vast mass of Credit affects prices just exactly as so much Gold does.

*On the Distinction between Money and Credit*

**33.** Money and Credit, then, are both of the same nature : being each a Right or Title to demand something to be paid or done by some one else.

The distinction between Money and Credit is this, that Credit is what a person voluntarily takes in exchange for goods or services. No one can compel another person to sell him anything in exchange for Money or Credit.

But supposing that a Sale or Exchange has taken place, and that a Debt has been incurred thereby, public policy requires that the Debtor should be able to compel the Creditor to accept something in discharge of his Debt. It would cause infinite misery if Creditors might arbitrarily refuse to receive the offer of payment of their Debts. Hence in all countries the Law declares that if a Debt has been incurred, the Debtor can compel the Creditor to receive something in payment of it.

Whatever that Something is which a Debtor can *compel* his Creditor to receive in payment of a Debt is termed **Money** or **Legal Tender**.

From this it follows that some things may be Money in some cases and not in others.

Gold Coin is Money, or Legal Tender, in all cases and to any amount.

Silver Coin is only Money up the amount of 40s. If a Creditor chooses to receive it in payment of a Debt to any greater amount than that, it is entirely of his own free will.

As between the public and the Bank of England, Bank Notes are nothing but Credit. The Bank must cash its notes on demand. And between private persons a Bank Note for £5 is not Money or Legal Tender for that exact amount of Debt. But for all debts exceeding £5, Bank Notes are Money, or Legal Tender. But this only is the case so long as the Bank pays its Notes in cash on demand. If it were to stop payment, its Notes would cease to be Legal Tender in any case.

If two persons are mutually indebted to each other in equal amounts, each may compel the other to receive the Debt he owes in payment of the Debt which is due to him. Each Debt is therefore Money, or Legal tender, with regard to the other.

#### *On Barter, Sale, Exchange, and Circulation*

**34.** When commodities are exchanged directly for one another, it is, as we have seen, called **Barter**.

When commodities are exchanged for Money or Credit, that Money or Credit is only taken that it may be exchanged away again. Hence the early Economists called a transaction in which Money or Credit is used *half-an-exchange*. It is also called a **Sale** or **Circulation**. A Sale or Circulation always denotes a transaction in which one or both the Quantities exchanged is Money or Credit.

The sum total of these Sales is properly termed the **Circulation**. Hence a single piece of Money may add considerably to the Circulation : because the more frequently it is transferred the more does it augment the number of Sales : and therefore augments the Circulation.

The word Circulation is sometimes used in a very corrupt sense, which must be carefully avoided, namely, as the Quantity of Money and Bank Notes in circulation, especially the latter. Of all the terms in common use this is one of the most objectionable. To call the Notes in circulation the Circulation is as great a confusion of ideas as to call a wheel a Rotation. We shall accordingly never use the word Circulation to mean the amount



of the Notes of a Bank ; the correct expression evidently is to say the *Notes in Circulation*.

As the use of Money and Credit is to set industry in motion, and inasmuch as they have no use unless they do that, their beneficial effects are not to be measured by their actual amount, but by the Quantity of industry which they generate. Money lying up in a box, or Credit unused, only represents latent Power, and not actual Power. They may be called Power or Wealth in the latent state : and they resemble the steam-engine of a mill which is not going : and which is of no use unless it is set in motion. And as the produce of the mill is measured by the quantity of motion of the engine : so is the useful effect of Money and Credit measured by the quantity of their motion, which we have called the Circulation. The Circulation which is the sole test of their useful effect is, therefore, the product of their amount multiplied into the velocity of their circulation. Engineers usually call the quantity of motion of the engine its **Duty** : so we may call the Circulation the **Duty** of Money and Credit.

It is so essential to have a clear conception of the useful effect produced by any given amount of Money or Credit, that we may add another illustration. The effect produced by any body in motion is determined by the weight or mass multiplied by its Velocity, and is called its *Momentum*. If the mass be diminished, yet, by increasing the velocity, the effect or momentum may still be the same. If a body weighing 100 lbs. move with a velocity 1, its momentum will be 100 : but if we diminish the weight to 50 lbs., and can double the velocity, the effect or momentum will be the same as before. The effects of Money and Credit are exactly analogous. Their useful effect is the result of their combined amount and velocity of circulation, which we have called the Circulation. If we can make 50% circulate with twice the velocity that 100% does, the useful effect, or circulation, will be exactly the same. Hence we may say that the Circulation is the Momentum of Money and Credit.

**35.** An **Exchange** is always the interchange of things of a like nature : either commodities for commodities : or Money or Credit for Money or Credit.

Thus we speak of the Foreign Exchanges, or the Value of the Money of one country in terms of the Money of another : or we ask for the change (i.e. the 'change or exchange) of a 5*l.* note or a sovereign : so we speak of exchanging one book for another : or a picture for a statue.

So in *Lear*, when Albany throws down his glove to the traitor Edmund, the latter, throwing down his own, says :—

'There's my exchange.'

meaning like for like. And, a little further on in the scene, Edgar says to Edmund—

'Let's exchange charity.'

So Laertes says in *Hamlet*—

'Exchange forgiveness with me, noble Hamlet.'

When the interchange is between commodities and Money or Credit, the one who gives Money or Credit is said to **Buy** the commodity : and the one who gives the commodity is said to **Sell** it.

Thus we Buy a horse or a house, or land, or cattle, or corn with Money. An officer formerly *bought* a commission in the army : but he *exchanged* from one regiment into another.

#### *On the Meaning of Circulating Medium*

**36.** The term **Circulating Medium** does not occur in Smith. The first instance of its use that we are aware of is in a speech of Fox's in 1797, in which he complains that it was a novel term whose meaning was not very well settled.

In scientific language a Medium is some middle thing by which something else is effected. The **Circulating Medium** is therefore the Medium by which Circulation is effected. We have already defined Circulation to be the exchange of a commodity for Money or Credit. Consequently the Circulating Medium must include Money and Credit in all its forms. Hence the total amount of the Circulating Medium must be simply the total amount of Money and Credit in all its forms.

#### *On the Meaning of Currency*

**37.** All writers use the term **Currency** as absolutely synonymous with Circulating Medium : if therefore we can positively

decide the meaning of one of these terms, that will also necessarily determine the meaning of the other. It has been seen that the meaning of the term Circulating Medium is perfectly clear : and this must also determine the meaning of Currency.

But the scientific meaning of the word Currency itself is not so evident : and it has given rise to protracted controversies in modern times. We shall not discuss these controversies here : we shall simply explain the true meaning of the word. It is, in fact, a technical term of Mercantile and Constitutional Law.

The following is the meaning of the words **Current** and **Currency** in English Law.

It is a general rule of Law that a person cannot transmit to another any better title than he has himself. It is also a general rule of law that, if a person has accidentally lost a thing, or has it stolen from him, he does not thereby lose his Property, or Right, in it. Consequently he can not only recover it from the thief or finder himself, but also from any one else to whom the thief or finder may have sold it : even though the purchaser paid the full price for it to the thief or finder, and bought it quite honestly, and without the knowledge that it was not the Property of the seller.

By the Common Law of England, if the thief or finder managed to sell the goods in market overt, the purchaser acquired a valid title to them, and could retain them against the true owner. Thus, in *Every Man in his Humour*, when Down-right claims his cloak, Stephen mendaciously says :—

Your cloak, Sir ! I bought it even now in open market.

But to this rule of law Money was always an exception. If the true owner of the Money finds it in the possession of the thief, he can recover it : but if the thief or finder has purchased goods in a shop with it, and the shopkeeper takes the money honestly in the way of business, and without knowing it has been stolen, he may retain it against the true owner, from whom it has been stolen, even if he can identify it. That is, *the Property in Money passes by Delivery*.

It is this peculiarity in the laws affecting the Property in Money which passes by delivery which is denoted by the words **Current** and **Currency** in English Law.

38. And when the representatives and substitutes for Money, such as Bank Notes, Bills of Exchange, Cheques, &c., came into use, the *Lex Mercatoria*, or custom of merchants, applied the same doctrine or principle of Currency to them. They were treated like Money in so far as this, that the Property in them passes like the Property in Money. Thus, if they are lost or stolen, the true owner may recover them so long as they are in the possession of the finder or thief : but if the possessor of them passes them away for value in the ordinary course of business to an innocent holder, that innocent holder acquires the Property in them, and may retain them against the true owner, and enforce payment of them from all the parties liable. Thus Bills of Exchange, Bank Notes, &c., and all other Securities for Money, are assimilated to Money in this important respect, that, even though stolen, when they have once been passed away in 'Currency' the Property in them belongs to the innocent purchaser : and Lord Mansfield said that no action would lie for them after they have once been paid away 'in Currency.'

It is thus seen that in strict law this principle of **Currency** can only be applied to those rights which are recorded on some material. An abstract Right cannot be lost, mislaid, stolen, and passed away in commerce. For a Right to be Currency in strict law, it must be recorded on some material, so as to be capable of being carried in the hand, or in a man's pocket, or put away in a drawer, or dropped in the street, or stolen from the drawer or from a man's pocket, and carried off by the finder or thief, and sold like a piece of goods.

So far then as regards law there is no difficulty : the meaning of the word is perfectly plain. But, if the word Currency is used to denote a certain class of Economic Quantities, synonymously with Circulating Medium, a difficulty arises : because there is an immense mass of Credit which has produced exchanges, and is therefore Circulating Medium, which is not recorded on any material at all, in such a way that it can be lost, or stolen, and passed away by manual delivery.

Thus the gigantic mass of Bank Credits and Book Debts of Traders have all effected a Sale or Circulation : and therefore they are all Circulating Medium : but they are not **Currency** in a legal sense, because they cannot be mislaid,

or lost, or stolen, and passed away by manual delivery. So also private Debts between individuals. These Debts only arose out of the transfer of Money or Commodities: and they exist equally whether they are recorded on any Material substance or not. They are equally Circulating Medium. Consequently they are not Currency in point of Law, but they must all be included under that term when used in its scientific sense in Economics, synonymous with Circulating Medium: because those Rights of action are exactly the same in their nature and effects whether they are recorded on paper or not.

This truth was well expressed by the Marquis of Titchfield in the House of Commons, in speaking of the various forms of Credit used as substitutes for Money—‘When it was considered to how great an extent these contrivances had been practised in the various modes of **Verbal**, **Book**, and **Circulating Credits**, it was easy to see that the country had received a great addition to its **Currency**. This addition to the **Currency** would of course have the same effect as if Gold had been increased from the mines.’

#### *Different Forms of Currency*

**39.** Adopting, then, this Definition of Currency or Circulating Medium, we may enumerate its different forms or species as follows—

1. Coined Money: Gold, Silver, and Copper.
2. The Paper Currency: Promissory Notes, Bills of Exchange, &c., with all their varieties.
3. Simple Debts of all sorts not recorded, on Circulating Paper: such as Credits in bankers' books termed Deposits: Book Debts of traders: and private Debts between individuals, termed **Verbal Credits**.

It is obvious that there is no distinction in principle between these two latter species. They each denote that a transaction of some sort has taken place, and are a **Title** to future payment. As a matter of convenience some of them are recorded on paper: but that does not alter their nature. It is certainly true that some of these descriptions of Currency are more eligible and secure than others: and perform their duties with different degrees of advantage. The Metallic Currency rests upon the

Credit of the State that it is of the proper weight and fineness : and the universal readiness of the people to receive it in return for services and products. Paper Currency, in this country at least, rests entirely upon private Credit, and is of all degrees of security from a Bank of England Note down to a private I.O.U. These different species of Currency, therefore, though they may possess different degrees of Circulating Power, though they may be more or less eligible or secure, represent but one Fundamental Idea—**Debt**. From these considerations it follows that the amount of Currency or Circulating Medium in any country is the *Sum total of all the Debts due to every individual in it*—that is, all the Money and Credit in it.

Lastly, under the Term Currency **Postage Stamps** must be included. Though the point has not been decided in Law yet, there can be no doubt whatever that Postage Stamps are subject to the principle of Currency. They are a most usual form of remittance : they pass in almost all small payments : and since the Law has directed the Post Office to cash them in money, they are in reality *id.* notes : and if any one were to steal Postage Stamps and pass them away honestly in payments, there can be no doubt that the same principle of Currency would apply to them, as to Bank Notes, Bills and Notes : hence they are strictly **Currency**.

#### *On Price, Interest, and Discount*

**40.** When any Economic Quantity is exchanged for any other Economic Quantity, each is termed *the Value* of the other. But when one or both the quantities exchanged are Money or Credit, they are each termed the Price of the other. Price, therefore, is always Value expressed in Money or Credit.

Now, the Value of Money is the Quantity of any Commodity or Service which can be got in exchange for it : the greater the Quantity so obtained, the greater is the Value of Money : the less the Quantity so obtained, the less is the Value of Money : or if the Quantity of the Commodity is fixed, the less the Money given for it the greater is the Value of Money : and the more the Money given for it, the less is the Value of money : hence it follows that *the Value of Money varies Inversely as Price*.

Debts or Credits, however, are Commodities which are bought and sold like any material chattels : and for the convenience of sale they must be divided into certain Units : Coals are sold by the ton : corn by the quarter : sugar by the pound : other things by the ounce. The **Unit of Debt** is the **Right to demand £100 to be paid one year hence**. The sum of Money given to buy this Unit of Debt is its **Price** : and of course the less the Price given to buy the fixed Unit of Debt, the greater is the Value of Money.

But in the commerce of Debts it is not usual to estimate the Value of Money by the Price paid for the Debt. As Money naturally produces a Profit, it is clear that the Price given for a Debt payable one year hence must be less than the Debt. The Difference between the Price and the Amount of the Debt is the Profit made by buying it. This **Difference or Profit** is termed **Discount**. And it is clear that, as the Price of the Debt decreases or increases, the Discount or Profit increases or decreases. In the commerce of Debts it is always usual to estimate the Value of Money by the Discount or Profit it yields. Hence in this case *the Value of Money varies Directly as Discount*.

Hence it must be observed that there are two great branches of Commerce : the commerce of Goods and Commodities : and the commerce of Debts. And the expression Value of Money has two distinct meanings according as it is applied to these different branches of commerce. In the Commerce of Goods the Value of Money means the **Quantity** of the Goods it can buy : in the Commerce of Debts it means the **Profit** made by buying the Debt.

Accordingly we have this Rule which embraces both branches of commerce.

*The Value of Money varies Inversely as Price and Directly as Discount.*

Profits made by trading in Money are made in two ways—

1. When the person who advances the Money agrees to defer receiving the Profit till the end of the term agreed upon. In this case the Profit is termed **Interest**.

If a man 'lends' £100 for a year, it is in reality a Sale or an Exchange in which he sells the Money, and in exchange for it

he receives the Right to demand £105 at the end of the year : and the £5 is the Interest.

2. Where the Profit is retained at the time of the advance and deducted from the advance : in this case the Profit is termed **Discount**.

But Discount is of two kinds—

(a.) In the ordinary books of Algebra it is said that Discount is where the Profit is retained at the time of the advance : and the sum advanced is such a sum as improved at the given Rate of Profit ought to be equal to the full sum. This may be called **Algebraical Discount**. It is used by Insurance Companies in determining the Present Value of future payments.

(b.) But the above kind of Discount is never used by bankers. In banking it is invariably the custom to deduct the full amount of the Profit agreed upon ; and advance the difference. Thus, if a banker discounts a bill of £100 payable in one year at 5 per cent., he simply advances £95 and retains the £5 as profit. As this method is always used in banking, it may be termed **Banking Discount**.

The Profits made by Interest and Algebraical Discount are exactly equal : but Banking Discount is more profitable, because in the latter £5 is gained in the advance of £95, in the former on the advance of £100.

In either case the Money is the Price of the Debt, and the Debt is the Price of the Money.

The **Rate of Interest** or **Discount** is the Amount of Profit made in some given **Time** as a year.

### *On the Channel of Circulation*

41. We must now advert to an expression which is sometime used in monetary discussions, and which will suggest some important considerations.

When unequal exchanges take place of commodities and services, it has been shown that Money and Credit represent the balances which arise from these unequal exchanges. The total of these are called the **Circulation**, and in monetary discussions the amount of these balances which arise is sometimes called the **Channel of Circulation**.



This Channel of Circulation is represented or filled by some material : and prices are estimated in pieces of this material. The quantity of the material which represents any given amount of Debt, and is equivalent to any amount of commodities or services, is entirely determined by the general laws of Value, and need not be adverted to here.

Let us first suppose that Gold is at any time used to represent Debt and to fill this Channel of Circulation : this gold metal is divided into certain pieces of fixed quality and weight, which are termed Coins : and Prices are estimated in these Coins.

But suppose that at any time Gold was suddenly discontinued as the representative of Debt, and Silver substituted for it : and suppose that pieces of Silver were coined of exactly the same size as the previous gold pieces, and substituted for them as the representatives of Debt.

Then, as Silver is about 15 times less valuable than Gold : it is clear that it would require fifteen times as many pieces in Silver to represent any amount of Debt as it would Gold pieces : and prices would apparently rise fifteenfold : but other commodities would still preserve the same relations among themselves. Hence, although Prices would rise, yet the Values of Commodities would remain exactly the same.

Again, suppose that Silver was taken away as the representative of Debt, and Copper substituted : and Copper coins struck of the same size as the silver or gold ones, and called by the same name. These pieces would be estimated in Copper : and as Copper is nearly 900 times less valuable than gold ; Prices estimated in Copper would rise to about 900 times their amount in Gold : the relative values of all other commodities still remaining the same.

Now, as the Value of Gold in representing Debts depends upon the Quantity of the Gold which represents any amount of Debt, it would manifestly follow that if the Quantity of Gold was suddenly increased which represented any amount of Debt, the Value of Gold would greatly diminish. And if Gold became as plentiful as silver, it would have no more value than silver : and consequently, even while the weight of the coins and their

quality remained the same, Gold would fall to the fifteenth part of its former value as a Purchasing Power.

So also, if Gold were to become as plentiful as Copper ; while it still represented the same amount of Debt, it would be of no more value as a Purchasing Power than Copper : that is, it would fall to about the ninth part of its former value.

Thus, in a general way, if a certain Quantity of Stuff of any sort is used to represent any Quantity of Debt, at any time, if the Quantity of Stuff is greatly increased while the Quantity of Debt remains the same, it necessarily produces a great diminution in the value of the Stuff : and a general rise of prices.

But the Quantity of Stuff which represents Debts and fills the Channel of Circulation need not be all of the same material. Thus it may be partly Gold, partly Silver, and partly Copper : and Prices will be estimated by the whole Quantity of Stuff which fills the Channel of Circulation, and not by any particular portion of it.

In modern times a new kind of stuff has been employed to a gigantic extent to fill the Channel of Circulation, and that is **Credit**, or simple **Rights of action** in different forms.

Thus the whole Quantity of Stuff which fills the Channel of Circulation is composed of Gold, Silver, Copper, and **Credit** : and Prices of Commodities are estimated according to the aggregate of all these different kinds of Stuff, and not according to any single one. Hence the creation and use of **Credit** in modern times produces exactly the same effects and acts upon prices exactly in the same way as an equal Quantity of Gold. And this to an extent which is very imperfectly appreciated and understood. It will be shown hereafter that in this country the Quantity of Credit which is used in commerce may be approximately estimated at about fifty times the quantity of metallic coin. Hence a thorough comprehension of the principles and mechanism of the great system of Credit is the very foundation of all modern Economics : and it is the excessive creation of Credit which produces more changes in the Prices of commodities at the present time than anything else.

**On Securities for Money and Convertible Securities**

**42.** We must now explain the distinction between **Securities for Money** and **Convertible Securities**.

A **Security for Money** always means a Security, or Obligation, for the payment of a definite sum of money by a definite person at a definite time. There is therefore always some **Person** who is bound to pay it. There are different forms of such Securities, such as Bank Notes, Bills of Exchange, Navy Bills, and Debts of all sorts.

**Convertible Securities** are Securities which no particular person is bound to pay : but for which, under usual circumstances, a purchaser can readily be found in the open market. A Convertible Security means any Property which can readily be sold. This species of Property includes the Funds, Shares in Commercial Companies of all sorts, all title deeds to goods of a movable description, such as Bills of Lading, Dock Warrants, &c. As Convertible Securities mean Property which can be readily converted into Money, there are, of course, all degrees of convertibility. There is no absolute distinction in principle between the different species of property. But of all species of property the Funds are the most readily convertible : and the Land, or Real Property, is the least readily convertible, mainly in consequence of the difficulty and expense in its transfer.

Thus Securities for Money are always Rights against a Person, or are *Jura in personam*, and are never Rights to specific things, or *Jura in rem*. Convertible Securities are never a Right against a person : and certain kinds of them are always Titles to specific goods.

Sometimes a Security for Money may be changed into a Convertible Security. This is done in what is called *Funding the unfunded debt*. The Government, like private individuals, often raises money on its Bills, and is of course bound to pay them at maturity. These Exchequer Bills, as they are called, are, like any other Bills, Securities for money. Sometimes, when these bills, called Floating Debt, amount to a large sum, it is not convenient for the Government to pay them off : and it gets its creditors to agree not to demand repayment of the whole debt, but only to receive interest on it in perpetuity. When

this is done the creditor loses the Right to demand the principal sum from the Government, but he may sell the Annuity, or the Right to receive the annual payments, to any one in the open market. It then becomes a Convertible Security, and is called the Funds, or Stock. This operation is termed *Funding the Unfunded or Floating Debt*.

In a similar manner Railways have been allowed to borrow money on their Bonds, termed **Debentures**. Finding it inconvenient to repay these large sums, they have formed them into **Debenture Stock**, upon which they are only bound to pay the interest, like the Public Funds.

#### **On Production and Consumption : and Supply and Demand**

43. The terms Production and Consumption are always used as correlatives in Economics, and the phrase '**Production and Consumption**' is one and indivisible, and its terms cannot be separated.

##### *On Production*

The Physiocrats originated the expression '**Production, Distribution, and Consumption of Wealth**,' by which they meant the **Commerce** or **Exchange** of the **material** products of the earth, and of these only.

By **Production** they meant obtaining the new produce from the earth, and bringing it into the Market or into Commerce.

The word **Production** comes from the Latin *producere*, which means to *lead*, or *bring forth* ; it is the technical word in Latin for *to expose for sale*.

Thus Thais, in the *Eunuchus* of Terence, says :—

Pretium sperans illico  
**Producit**, vendit.

*Hoping for a good price, offers her there for sale, sells her.*  
 So Menedemus, in the *Heauton Timorumenos* :—

Ancillas, servos . . . .  
 Omnes **Produxi**, ac vendidi.

*All the slaves, male and female, I offered for sale, and sold.*  
 So Suetonius says :—'Quum familia alicujus venalis **Producere**tur.'

*When any one's household slaves were offered for sale.*

The original sense of **Produce** in English is exactly the same as in Latin. It is to *draw forth, to cause to come near, to place in a given spot.*

Thus it is said in Isaiah :—‘**Produce** your cause, saith the Lord : *bring forth* your strong reasons, says the King of Jacob :’ and the marginal note says, ‘Produce, cause to come near.’

So Antony, in *Julius Cæsar*, says :—

That's all I seek,  
And am moreover suitor, that I may  
**Produce** his body in the market-place.

So Albany says, in *Lear* :—

**Produce** their bodies, be they alive or dead.

So when Mr. Montague Tigg gives Mr. Jonas Chuzzlewit and a party a dinner—‘It was as good a one as Money (or Credit, no matter which) could **Produce**.’

So to **Produce** a thing is simply to bring it forward, and place it where it is wanted. If a witness is told to *produce* a deed or other document in Court, it means that he is to bring it into Court and place it there. So a party to a cause **Produces** his witnesses in Court. A gaoler is ordered to **Produce** the body of his prisoner in Court, *i.e.* to place him there.

In the universal language of commerce the **Producer** is the person who brings anything into the market and *offers it for sale*. When the turn of the market is for or against the Producer, it means that it is for or against the **Seller**.

Hence the true and original meaning of **Production** in Economics is to *place anything in the market, or in the spot where it is offered for sale.*

A great poet may *Produce* a great poem : a great sculptor may *Produce* a great statue : a great artist may *Produce* a great picture : we may estimate their merits most highly : they may be among the highest products of human genius :—but how are we to estimate their Money Value ? Now, though the poem, the picture, or the statue, may be *produced* in nature, or called into existence : they are not **Produced** in Economics until they are *brought into the market and offered for sale.*

So in French the primary and original meaning of *Produire* is *pousser en avant*: and of Production it is *action de produire, de mettre en avant*.

### Three different Classes of Producers

44. In Economics, then, **Production** means placing any article in the market, and offering it for sale; and all the different operations necessary for that purpose are summed up and included under the term Production.

Now there are in general **Three** distinct kinds of persons who are required to place any article in the spot where it is offered for sale to the final purchaser.

1. **Agricultural Producers.**—One class of persons obtain the raw produce from the earth, such as agriculturists, miners, hunters, fishermen, &c., and bring it into commerce: These are called **Agricultural Producers**.

2. **Manufacturing Producers.**—But as the raw produce of the earth is seldom fitted for human use without undergoing several processes of manufacturing and fashioning, manufacturers of all sorts purchase this raw produce from its first or Agricultural Producers, and fashion and transform it by an infinity of processes, so as to render it fit for human use. These are termed **Manufacturing Producers**.

3. **Commercial Producers.**—But even after the raw produce of the earth has been rendered fit for human use, it has to be transported from one country to another: and from one place to another, to the shop or market where it is finally offered for sale or use. Hence all modern Economists include **Transport** as one species of Production. J. B. Say expressly enumerates transport under the term production. Mill, who gives the first book of his work to Production, in the sense of obtaining things from the earth, in a subsequent chapter says:—‘Improvements in production, understanding the last expression in its widest sense to include the process of *procuring commodities from a distance*, as well as that of producing them.’

Hence Merchants, or Foreign importers, Wholesale and Retail dealers of all sorts, are **Producers**, because they place the product in the spot where it is offered for sale. Hence it is

most important to observe that **Commerce** or **Circulation** is one species of **Production**. All these classes of persons are termed **Commercial Producers**.

Hence all Production is summed up in placing any article in the place where it is offered for Sale. So far as the Customer is concerned, the *tradesman* in whose shop he finds the article he wants is the **Producer**. It makes no difference to him whether the tradesman keeps workmen in his own employ, and transports the article from his workshop to his counter, or whether he pays an independent manufacturer 300 miles off to make it, and then transports it to his shop.

#### *On Consumption*

**45.** The word **Consumption** is the correlative of Production: as Production means placing an article in the spot where it is offered for sale, so **Consumption** means purchasing the article, and taking it out of commerce for the purpose of use and enjoyment. It requires, however, some little explanation to show how this meaning is arrived at.

The term in French for *Consumption* is **Consommation**, which means *completion*, and was used by the early French Economists to mean simply **Demand**. **Consommation** (*Demand*), says Boisguillebert, is the principle of all Wealth.

Thus the Physiocrats termed the person who finally bought a product, and removed it from the operations of commerce for use and enjoyment, the **Acheteur-Consommateur**, the **Buyer-Consumer**.

*Consommation* is derived from the word *Consommer*, which comes from the Latin *Consummare*, to *complete*, to *accomplish*.

Thus La Fontaine says—'En peu de jours il *consomma* l'affaire.' 'In a few days he *completed* the transaction.'

So Pascal says—'On va chercher et *consommer* la démonstration.' 'We must now seek for and *complete* the proof.'

So Dupuis says—'Durant laquelle se *consomme* le grand ouvrage.' 'During which the great work is *completed*'—'tout était *consommé* au retour du soleil à l'équinoxe'—'all was *completed* at the return of the Sun to the equinox.'

Another writer says—'Le sacrifice d'Isaac, qui ne fut point *consommé*, fut l'image de celui qui fut *consommé* sur la croix.'

'The sacrifice of Isaac, which was not *completed*, was the type of the one which was *completed* on the Cross.'

We need not multiply instances, as any one who reads French attentively knows well enough that the genuine sense of *consommer* is to complete or accomplish.

And this was the meaning universally given to *Consummation* by the early French Economists.

Thus Le Trosne says—'Il y a cette différence entre l'échange et la vente, que dans l'échange tout est *consommé* pour chacun des parties: elles ont la chose qu'elles voudraient se procurer, et n'ont plus qu'à jouir. Dans la vente, au contraire, il n'y a que l'acheteur qui eut rempli son objet: parce qu'il n'y a que lui qui soit à portée de jouir. Mais tout n'est pas *terminé* pour le vendeur.'

And again—'L'échange arrive directement au but, qui est la *Consummation*: il n'a que deux termes, et se *termine* par un seul contrat. Mais un contrat où l'argent intervient n'est pas **consommé**, puisqu'il faut que le vendeur devienne acheteur, ou par lui-même, ou par l'interposition de celui auquel il transportera son argent. Il y a donc pour aboutir à la *Consummation* qui est l'objet ultérieur, au moins quatre termes et trois contractants, dont l'un intervient deux fois.'

So Blanqui says—'Toutes les transactions devaient se *consommer* par forme d'échange.'

So Cournot says—'Où se *consomment* les achats et les vents.'

So Michelet says—'Il ne *consomme* rien, ne *finit* rien.'

Consummation or Consumption, then, in the language of the early French Economists, simply meant the **completion** of an Exchange. Suppose, for example, that a painter and a sculptor agree to exchange a picture and a statue. When the painter has received the statue, and the sculptor has received the picture, each has Produced, i.e., offered in exchange his own work, and *consummated* his desire by obtaining the thing he desired to enjoy. And the Exchange is *Consummated* and *Completed*: because each has obtained a **Satisfaction**. Hence was effected what the Early Economists called a *complete* Exchange. But there was no idea of Destruction in this reciprocal Consummation of desires.



The *Consommateur*, or Consumer, then, was the person who consummated, completed, or accomplished the desire of the Producer. The Producer brings forward something and offers it for sale: but it is the Purchaser who gives Value to it: it is he who crowns the work, and consummates the desire of the Producer: and completes the transaction by purchasing the product, thereby giving it Value. The Consumer, therefore, meant nothing but the Purchaser, or the Customer.

But, as a matter of fact, a considerable portion of what men buy they purchase for the sake of destruction, such as food, wine, &c., and so gradually, from carelessness and want of scientific accuracy, the word *Consommation* came to be applied to destruction. All sorts of food are now called *articles de consommation* in France: and thus the French Economists have corrupted the French language.

Much misconception has arisen from the French language having two words, *Consumption* and *Consommation*, which are both translated by the same English word, **Consumption**. The French word *Consumption* comes from *Consumer*, from the Latin *Consumere*, to *destroy*, to *waste away*. But *Consumption* is never used in French Economics to mean *Consumption*.

Smith begins his work thus:—‘The annual labour of every nation is the fund which originally supplies it with all the necessaries and conveniences of life which it annually **Consumes**.’ Now what does Consumes mean here? So far as regards food and clothing, the meaning may be thought to be clear enough. The labourer *consumes*, i.e. *destroys*, food and clothing, which he receives in exchange for his labour. But suppose that, after having satisfied his hunger, and bought sufficient clothes, he wants a house: does he *Consume* the house? Suppose he gratifies his taste by buying a picture or a statue; does he *Consume* the picture or the statue? Suppose he goes to see a play or an opera: does he *Consume* the play or the opera? If he buys a diamond ring or any other article of jewelry; does he *Consume* the diamond ring or the jewelry? If he invests his savings in buying a piece of land: does he *Consume* the land?

The fact is, that Smith knew well enough that Consumption in Economics does not mean *Destruction*, but simply **Purchase**.

In a subsequent passage he says—‘Though the weekly or

yearly revenue of all the different inhabitants of every country in the same manner may be, and in reality frequently is, paid to them in money: their real riches, however, the real weekly or yearly revenue of all of them taken together, must always be great or small in proportion to the quantity of *consumable* goods which they can all of them purchase with this money. The whole revenue of all of them, taken together, is evidently not equal to both the money and the *consumable* goods, but only to one or the other of these two Values, and to the latter more properly than to the former.

'Though we frequently, therefore, express a person's revenue by the metal pieces which are commonly paid to him, it is because the amount of these pieces regulates the extent of his power of **Purchasing**, or the value of the goods which he can annually afford to **Consume**. We still consider his income as consisting in this power of **Purchasing** or **Consuming**, and not in the pieces which convey it.'

Thus Smith uses the word **Consuming** simply as meaning **Purchasing**: and of course persons are very far from destroying or intending to destroy all they purchase.

We must, therefore, eliminate all ideas of Destruction from the term Consumption in Economics: and leave only *Purchase* as its true meaning. The **Consumer** is simply the **Purchaser** or **Customer**.

#### *Meaning of the Expression 'Production and Consumption'*

46. Hence the student must carefully observe that in the language of Economics the expression '**Production and Consumption**' is one and indivisible, and must not be separated into its component terms. Production and Consumption together constitute Exchange, and each act of Exchange is a phenomenon of Value or of Commerce.

It is often said that Consumption is the end and aim of all Production: but if Consumption is used to mean Destruction, this statement is obviously untrue.

An architect builds a palace: he, the builders and the workmen are, in the language of Economics, **Producers**: the palace is a **Product**. Are palaces built for the purpose of being de-

stroyed : and is a loss incurred if they are not destroyed immediately they are produced ?

An artist *produces* a great picture : a sculptor *produces* a great statue : are the picture and the statue produced for the purpose of being destroyed ? and is a loss incurred if they are not destroyed immediately they are produced ?

We need not give any more instances, as multitudes will occur to any one who reflects on the subject.

Even though it should be said that the majority of things wear away in the course of time, Economics has nothing to do with their destruction, as Economics has nothing to do with the various processes by which things are obtained : but a product only enters into Economics when it is brought into commerce and offered for sale : so when it is finally purchased for use and enjoyment, and passes out of Commerce, it passes out of Economics : and Economics has nothing to do with the mode in which products are used and enjoyed. The Economic phenomenon is nothing but the Exchange.

Bastiat well says—‘In general we devote ourselves to a trade, a profession, or career : and it is not from that that we expect directly the object of our satisfaction. We render and we receive services : we offer and we demand values ; we make purchases and sales : we labour for others, and others labour for us : in a word, we are **Producers** and **Consumers**.’

In short, when we understand the true meaning of the terms Production and Consumption, the expression ‘Consumption is the end of all Production’ is simple tautology : for it means only this, that things are offered for sale for the purpose of being sold !

#### *On Supply and Demand*

**47.** So long as the science of Economics was limited to the *material* products of the earth, the phrase ‘Production and Consumption’ was perfectly intelligible and unobjectionable. But when the term Wealth and the Science of Economics were extended to include Labour and Rights, great awkwardness arises. For even though it is carefully explained that Production means nothing but offering for sale, and Consumption means nothing but Purchasing, it is very awkward to speak of the Production and Consumption of Labour.

And it becomes still worse when Rights are brought into the science as Exchangeable Quantities, or articles of commerce. For who would understand the expression the Production and Consumption of Debts, Shares, the Funds, Copyrights, Patents, &c.

Under these circumstances, it is indispensable to resort to terms of wider import, which will include all the three orders of Economic quantities, and these we have in the terms **Supply** and **Demand**.

Production is the Quantity of anything offered for Sale: and the Supply of anything is also the Quantity of it offered for sale: and it is quite usual to speak of the Supply of Labour, i.e. the persons who are offering their Labour for sale: and it is also quite usual to speak of the Supply of Bills, i.e. of Debts in the market. Hence the word **Supply** is constantly used with respect of the Quantity of all the three orders of Economic Quantities offered for Sale: and is therefore the term we want.

Somewhat more subtlety appertains to the word **Demand**.

Demand, of course, is a desire of the mind to possess something: but unless persons possess something to give in exchange for what they want, they can give no effect to their desire: and such an impotent desire is not an Economical phenomenon.

It is easy to see that Demand is not exactly the same thing as Consumption: because there may be exactly the same number of things bought or consumed: and yet the **Demand** for them may be very different.

Suppose a theatre which holds a certain number of seats: in ordinary times the house may be filled at certain prices. But an artist of extraordinary merit, a Jenny Lind, comes, and the Demand, or the desire to possess the seats, increases—prices rise enormously. Now the number of seats, or the Production, remains exactly the same; the Supply is exactly the same: the number of seats offered for sale, and the number bought, or the Consumption, remain exactly the same: but the Demand has varied greatly.

Now, as Value is originally a desire of the mind: but as Value is not manifested as an Economic phenomenon unless an Exchange takes place: and what a person gives to obtain something else is termed the Value of that commodity: so Mill has

proposed that the Quantity of Money or anything else a person gives to obtain something in exchange for it should be called the **Demand** for it. This suggestion is excellent, and clears away many difficulties which surrounded the term: and we shall adopt it. Thus each Quantity offered is the Supply of that article, and the Demand is the Value of the other, whatever their nature may be.

Thus, while the terms Production and Consumption were limited to the exchange of the single class of the Material products of the earth: the terms Supply and Demand embrace and comprehend the exchange of all the *three* classes of Economic Quantities.

#### *On Productive Labour*

**48.** The word **Productive** also, of course, comes from the same word *Producere*, to draw forth: but was always applied by the Physiocrates to that which Produced or Drew forth a Profit: *i.e.* produced a surplus after defraying its Cost. By **Productive Labour** the Physiocrates meant Labour which produced a Profit after defraying the Cost of Production. By **Unproductive Labour** they meant Labour which produced no excess of Value, or Profit, after defraying its cost. It does not concern us here to determine whether they were right in their designation of particular kinds of Labour as Productive and Unproductive: we have only to explain their meaning of the term.

So Smith says that a Capital may be employed in four different ways, and that all persons who employ their Capital in any of these four ways are **Productive Labourers**.

And these passages agree exactly with common usage. Hence, in accordance with them and with general usage, we shall always use the term **Productive Labour** to mean Labour which earns or produces a profit: and **Unproductive Labour** to mean Labour which earns or produces no profit, after defraying the Cost of Production.

#### *On Cost of Production*

**49.** As it has been explained that Production in Economics means placing any commodity in the market or place where it

is offered for sale, the Cost of Production means the sum actually expended on it, in all its various stages, to place it in that market.

*On Profit : and Rate of Profit*

50. The word **Profit** comes from the Latin *Proficere*, to make progress.

So Marlowe, in *Faustus*, says—

So soon he **Profits** in Divinity.

*i.e.* progresses.

The sum actually expended in placing any commodity in the market is its **Cost of Production** ; the sum it actually sells for is its **Value** : and the **Difference** between the Cost of Production of any thing and its Value is termed the **Profit**.

The Value may exceed or it may fall short of the Cost of Production : when the Value exceeds the Cost of Production the Difference or the Profit is Positive, and is termed a **Gain** : when the Value falls short of the Cost of Production, the Difference or Profit is Negative, and is termed a **Loss**.

The **Rate of Profit** is the Amount of Profit made in some given Time, as a year.

Hence the Rate of Profit varies *directly* as the Amount of the Profit : and *inversely* as the Time in which it is made.

*On Capital*

51. The word **Capital** comes from the Latin *Caput*, which means the Source of a spring, or the Root of a plant : that is, the source from which Increase or Profit flows.

Thus Plautus says—

‘ O scelerum **Caput** ’—‘ O source or fountain of crimes ’—  
‘ Perjurii **Caput** ’—‘ Oh fountain of perjuries.’

Stephens, in his Thesaurus, thus defines the word *κεφάλαιον*—*Caput, unde fructus et reditus manat.* ‘ **Capital** : the Source from which any Profit or Revenue flows.’

So Senior says—‘ Economists are agreed that **Whatever** gives a Profit is properly termed **Capital**.’

And de Fontenay says—‘ **Wherever** there is a Revenue you perceive **Capital**.’

This is a good general Definition: and exactly conforms to the canons we have laid down: and the **whatever** gives a Profit must be interpreted in as wide and general a sense as the **Anything** whose value can be measured in money is in the definition of Wealth.

Now any Economic Quantity whatever may be used in two distinct ways—

1. The proprietor may use it himself for his own personal enjoyment.

2. He may trade with it, i.e., use it so as to produce a Profit.

When any Economic Quantity is traded with, i.e., used so as to produce a Profit: or as it is termed in Economics, used Productively; it is termed **Capital**.

The definition of Capital is therefore this—

**Capital** is any Economic Quantity used for the purpose of Profit.

Economic Quantities are of three distinct orders (1) Material things: (2) Personal Qualities: (3) Rights: and each of these Quantities may be used in either of these ways: that is, each of them may be used as **Capital**.

1. **Material things**.—Suppose a person has a sum of Money. If he expends it on his household requirements, paying rent, servants' wages, or food or clothes: or if he spends it on personal enjoyments, such as buying pictures or statues, &c., such Money is not used as Capital.

But if he lends out that Money at interest it is Capital. Money placed out at interest was termed *κεφάλαιον* or *ἀρχαίον* in Greek: and *caput* or *sortes* in Latin: and in mediæval Latin, *Capitale*.

In process of time *Capitale* was shortened into *Capitale*, and this was corrupted into Cattle as applied to beasts, and Chattels as applied to things.

Hence we see that Capital was always applied to a sum of money used in a particular way: i.e., put out to interest.

Now a sum of money put out to interest is only a special instance of a general Idea: and if we want to generalise it, it is an Economic Quantity used for the purpose of profit: and

consequently any Economic Quantity used for the purpose of profit is Capital, as well as a sum of Money put out to interest.

So if a person buys into the Funds, or buys Shares in Commercial companies which bring him in a Revenue, he uses that Money as Capital.

So if he buys Goods with the intention of selling them again with a Profit, he uses the Money as Capital : and the Goods so purchased are also Capital, because they are intended to be sold again with a profit.

So the farmer or manufacturer who pays wages to labourers and artisans of all sorts to produce these goods, uses that Money as Capital : because he intends that it should be replaced with a profit in the price of the goods.

So if the owner of land lives on it himself and uses it for his own enjoyment, he does not use the land as Capital : but if he lets it out to farmers, or to a builder to build houses on, for profit, and receives a Rent in either case : then he uses the Land as Capital. Some great noblemen possess large tracts of land upon which a large part of London is built : that Land yields them an enormous Revenue, and therefore it is Capital to them.

So if a person expends Money on learning a profession of any sort : he lays out the Money as Capital because he intends it to come back to him with a Profit.

**2. Personal Qualities.**—All modern Economists, Smith, Say, Senior, Mill, and others, agree with the author of the *Eryxias* that personal Skill, Abilities, Energy, and Character are Wealth : because persons can make an income by their use. Hence they may be used as Capital as well as any Material Chattel.

But Personal Qualities may be used to make a Profit, or as Capital, in two distinct ways : if used in one way they are termed **Labour** : if in the other, **Credit**.

(a). **Personal Qualities, as Labour.**—If a man digs in his garden for his own amusement, such Labour is not Capital : or if he sings, or acts, or gives lectures for the private delectation of his friends, such Labour is not Capital.

But if he sells his Labour in any capacity for Money : then



such Labour is used as Capital by him. Thus Huskisson said—‘he had always maintained that Labour is the poor man’s Capital.’

So Mr. Cardwell, addressing his constituents, said—‘Labour is the poor man’s Capital.’

And a writer in a daily paper said—‘The only **Capital** they possess is their **Labour**, which they must bring into the market to supply their daily wants.’

So De Quincey says—‘His Estate is his Capacity to serve.’

And the Economist said the Irish farmers ‘who have no **Capital** but their **Labour**.’

So his talents and abilities are Capital to any one who earns an income as an advocate, or a physician, or a surgeon, or engineer, or in any other profession. He makes an income which is measureable and taxable just in the same way as if he had made an income by selling corn, or wine, or cattle, or any other material chattels. All modern writers admit that Labour is a Commodity like a material chattel: and consequently it can be sold for a profit like any other Chattel.

(*b*). **Personal Qualities**, as **Credit**.—But a man may use his Personal Skill, Character, and Energy for the purpose of Profit, and therefore as **Capital**, in another way besides the direct exchange of them for Money.

He may use them for the purpose of purchasing goods, materials, &c., or he may purchase and employ Labour by giving in exchange for them a **Promise** to pay in future, instead of actual Money. In popular language this **Purchasing Power** of Character is called **Credit**. A merchant or trader is said to be in good Credit when persons would be willing to sell him goods and take in exchange for them his *Promise to pay* at a future time, instead of actual money. And a trader makes a Profit by trading with his Credit precisely in the same way as if he traded with Money. Thus Smith says—‘Trade can be extended as Stock increases, and the **Credit** of a frugal and thriving man increases much faster than his stock. His trade is extended in proportion to the amount of both [i.e. his Stock and his Credit]: and the sum or amount of his Profits is in proportion to the extent of his trade: and his annual accumulation in proportion to the amount of his Profits.’

So Mill, who defines Wealth to be anything which has Purchasing Power, says in a multitude of places that Credit is Purchasing Power: and therefore Wealth, by his own definition.

But as Human Abilities, Skill, and Energy do not come within the domain of Economics until some exercise of them is made in exchange for Money: so also a merchant's general Credit, or Purchasing Power, does not come within the domain of Economics until he actually does make some purchase with it: and when he does exercise his Credit in this way, he gives his *Promise to pay* in exchange for the goods instead of Money: and it is this **Promise to pay** which is the Economic Quantity termed **Credit**: and it may be bought and sold like any material chattel any number of times before it is paid off and extinguished.

3. **Rights**.—When Personal Qualities are used as Capital in the latter of these methods, a **Right** or Economic Quantity of the third order is generated: and this Right is a saleable commodity—*Pecunia, Res, Merx*—and may be bought and sold, and used as Capital as well as any material chattel: in a future chapter we shall have to exhibit at length the commerce in these Rights of action, which is the most colossal branch of modern commerce.

But also any other Right may be used as Capital. If a man buys into the Funds; the Funds produce him a profit, hence they are Capital to him. So if he invests his money in Shares of a Commercial Company, they are Capital to him. If an author writes a successful work, the Copyright of it is Capital to him: and he may sell it to a publisher, and it is Capital to the publisher.

There is a class of traders whose business it is to buy and sell Rights of this nature, the Funds, Shares in Commercial Companies, Foreign Bonds and Securities, and they keep a stock of this kind of Property on hand, just as other traders keep a stock of material goods.

*There is no such thing as **Absolute Capital***

52. It must be carefully observed that there is no such thing as **Absolute Capital**. As Mill observes, the distinction between

Capital and non-Capital does not lie in the **kind** of the Commodities, but in the **Mind** of the Capitalist ; in his will to employ it in one way rather than in another. Sometimes Capital is defined as simply the accumulation of the past : but this form of expression must be carefully avoided as essentially erroneous and misleading : for all the accumulation of the past is not used as Capital : but only that portion of it which is traded with or used for profit : and things may be used as Capital which are not the *Accumulation of the Past*, but the **Anticipation** of the **Future**.

**Capital may increase in Two distinct ways**

**53.** Capital may increase in two fundamentally distinct ways—

1. By direct and actual **Increase** of **Quantity** : thus flocks and herds, cattle, corn, and all fruits of the earth increase by *adding* to their *Number* or *Quantity*.

2. By **Exchange** : that is, by substituting something which has a higher value in any place for something that has a lower value : that is, by **Commerce**.

Money is used as Capital, and produces a profit, by the second of these methods : money is used as Capital by exchanging it away for goods which are sold for a greater sum than they cost : and it is also clear that any Economic Quantity which is used as a substitute for money to purchase goods with, and for the purpose of profit, may be used as Capital as well as money, by the force of the definition which Senior says all Economists are agreed upon.

Hence, if a merchant or trader can purchase goods by means of his Credit, that is, by giving his Promise to pay at a future time, and by so doing sells the goods at a higher price than he gave for them, and so makes a Profit after paying and discharging the Debt he has incurred, it is clear that his **Credit** has been **Capital** to him exactly in the same way and in the same sense that Money would have been.

As a very simple example : suppose a merchant buys goods with £100 in Money, and sells them for £125 : he first replaces his original Capital of £100 ; and then he has a profit of £25 : he is therefore better off by £25 at the end of the operation

than he was at the beginning : and he has used his Money as Capital.

Suppose he has no Money and no Credit : he can buy no goods and he can make no Profit.

But if the owner of the goods has confidence in his Skill, Integrity, and Character, he may sell him the goods and take in exchange for them the trader's *Promise to pay* for them three months afterwards.

As the payment is deferred, and there is necessarily some risk of failure of payment, the Price in Credit is higher than the Price in Money : suppose that the Credit price is £105 : then, as before, the trader sells the goods for £125. At the due time he has first to discharge his Debt of £105, and then he has £20 of Profit over : that is, he is better off by £20 at the end of the operation than he was at the beginning : and thus he has used his **Credit as Capital**.

Now by the cash operation he is £25 better off : and by the Credit operation he is £20 better off than at the beginning. It is true he does not make so great a Profit by his Credit as by Cash. But yet he has made a Profit by his Credit which he could not have made without it. Hence, by the very definition, his Credit has been Capital to him : and has produced exactly the same Circulation of commodities that Cash would have done. But, as we have seen, Circulation is one form of Production : hence **Credit is Productive Capital** in exactly the same way, and in the same sense, that Money would have been.

#### *On Fixed and Floating or Circulating Capital*

54. We have seen that there is no such thing as **Absolute Capital** : that any Economic Quantity whatever may be used as Capital : and that it depends entirely upon the Mind of the user and the Method of use whether any Economic Quantity is Capital or not.

But Capital itself may be used in two distinct ways—

1. The Capitalist may retain it in his own possession, and make a continuous series of profits by its use : and consequently the Capital is only replaced with the profits in a series of instalments : Capital used in this way is termed **Fixed Capital**.

2. The Capitalist may part with it entirely : and replace the entire Capital and Profits in one operation : hence it goes away from him entirely : Capital used in this way is termed **Floating or Circulating Capital**.

It must be clearly understood that it is according to the intention of the person who uses it and the purpose and method in which it is used that it receives either of these names. The same article may be Floating Capital in the hands of one person, and Fixed Capital in the hands of its next possessor, if the first produces it for the purpose of selling it outright, and the second purchases it for the purpose of making a profit by its use.

This distinction is often overlooked, and the term Fixed Capital is often applied to articles of a particular nature : and Floating or Circulating Capital to articles of another nature.

Thus Smith enumerates four kinds of Fixed Capital—

1. The useful machines and instruments of trade, which facilitate and abridge Labour.

2. Buildings used for purposes of profit both by their proprietor and by those who pay rent for them for trading purposes.

3. Improvements in Land.

4. The acquired and useful Abilities of all the members of the society.

This enumeration is very imperfect, because it omits all that stupendous mass of Incorporeal Property which has increased so immensely in recent times.

Thus, if a man invests Money in the Funds : or in the Shares of a company : or in purchasing the Goodwill of a business : or a Practice : or a Copyright or a Patent : all these are Fixed Capital to their purchasers.

Smith also enumerates four kinds of Floating Capital—

1. The Money by means of which the other three are circulated and distributed to their proper Consumers.

Under the term Money, he includes Bank Notes, Bills of Exchange, and other Securities for Money : but all these paper documents are merely **Rights of action** or **Credit** : hence Smith expressly includes Credit under the title **Floating or Circulating Capital**.

2. The stock of provisions in the hands of the farmers, graziers, butchers, corn merchants, brewers, &c.

3. The materials in the hands of different workpeople to be made up, clothes, furniture, &c.

4. The work which is made up and completed, but still remains in the hands of the merchants and manufacturers, but not yet disposed of, or distributed to the proper Consumers : such as the finished work in the shops of the smith, cabinet maker, goldsmith, jeweller, china merchant, &c.

It must be carefully observed that Smith's distinction of certain articles as Fixed Capital, and of other things as Floating Capital, is erroneous.

Thus houses, lands, &c., are by no means invariably Fixed Capital. It is quite common for speculators to buy up land and build houses for the express purpose of selling them again. In the hands of these speculators, houses and lands so traded with are **Floating Capital** : because the entire property in them is parted with in one operation. But if a person buys land for the purpose of farming it himself for profit : or of letting it out to farmers : or buys or builds the houses for the purpose of letting them to tenants : then such houses and lands are **Fixed Capital**.

Some manufacturers build engines which are sold to Railway Companies : or agricultural implements which are sold to farmers : or machinery which is sold to manufacturers : in the hands of the makers these engines and machines are **Floating Capital** : because they are made to be sold absolutely and so change masters : and their whole price and profit is paid in one operation. When they come into the hands of the Railway Company, the farmers, and the manufacturers, they become **Fixed Capital**, because they remain in the possession of their owners, who only make a series of profits by their use.

So a shipbuilder builds ships and sells them to a Company : in the hands of the builder the ships are **Floating Capital** : in the hands of the Company they become **Fixed Capital**.

Articles which are usually classed as Floating Capital may become Fixed Capital. Furniture, and clothes, and plate are usually Floating Capital, because they are usually made for the purpose of being sold. But sometimes they are made for the

purpose of being let out for hire, and then they are **Fixed Capital**.

If a person buys into the Funds, or Shares, as an investment to produce an income, they are **Fixed Capital**. But there is a class of persons, called Stock Jobbers, who buy this kind of property with the intention of selling it again with a profit : and they keep a stock of it as traders do goods : in the hands of such persons such Property is **Floating Capital**.

There is another class of traders, called Bankers, whose especial business it is to buy Debts. The Bills in the portfolio of a banker are exactly like the goods in the shop of a trader : the banker buys them at a lower price from one person, and sells them at a higher price to another : hence the bills are **Floating Capital** to the banker.

It is therefore incorrect to apply the terms Fixed and Floating Capital to any object, whatever its nature may be, unless we know the intention of its owner in using it. And unless an object is incapable of being applied to more than one of these purposes, it is not correct to call it by either name absolutely. There are very few articles to which the name of Fixed Capital may be invariably applied. The only one to which it seems necessarily to be applied is the knowledge, skill, and capacity of a person : because he cannot sell and divest himself of these qualities : though he may sell the Right to make use of them on a special occasion.

The only species of property which is necessarily Floating Capital is Money. Money, to be used, must necessarily be paid away and change masters. Almost all other property is capable of being used in either way at the will of the owner.

*On the Conversion of Floating into Fixed Capital*

55. It makes no difference to the Capitalist, who lives on the profits of his Capital, whether he reaps that profit in one operation or in many : as the result must always be the same to him in the end. But to the class of persons who live by their daily labour—the workmen in his business—the difference in the mode of employing Capital is of very great importance. Thus, if the builder of the ship sells it immediately, and receives the whole price of it at once, he can employ the full price

in building another ship, and the full price may be expended in the wages of shipwrights, and the producers of the materials for the new ship. In this case the ship is **Floating Capital**.

But if the builder of the ship only lets it out for hire, and receives a periodical instalment for its use, he can only employ that part of the instalment which represents the deterioration of the ship in building a new one. Consequently, if he changes the nature of his business very suddenly, that is, if he suddenly turns his Floating into Fixed Capital, the fund applicable to the employment of Labour will be greatly diminished, and it must infallibly cause much distress among the persons who were dependent on him for their support. By seeking other employments they may perhaps be ultimately as well off as before. But it is clear that, if a large number of persons have been accustomed to have a particular kind of labour found for them, any sudden change by which the system is disorganised must produce at least temporary distress. It may be said that the Capital of the purchaser of the ships, instead of going to the builder of the ship and being spent among that class of workmen, might be employed in encouraging other species of industry, so that the result to the whole community would be the same. But the overthrow of any system upon which a great number of people depend must be followed by much suffering. It appears, then, that the conversion of Floating into Fixed Capital requires to be done with much caution, and only in certain quantities at a time, to prevent its being injurious to large classes of persons. And if a large class of the public are seized with a sudden mania to convert an unusual quantity of Floating into Fixed Capital, it must be followed by at least temporary distress. In 1847 the enormous quantity of the Floating Capital which was suddenly turned into Fixed Capital by the Railway mania in that year was one of the causes of the great financial panic of that year.

#### *On Rent and Hire*

56. Exchanges in commerce are of two sorts : one when the absolute Property in the thing is purchased, or the Right to it for ever : the other, where only the Right to use it for a limited period is purchased.



When the Right or Property in the thing for ever is purchased, the sum given is called its **Price** : when the Right only to use it for a limited period is purchased, the sum given is called **Rent** or **Hire**.

The word **Rent** properly means an **Annuity**, and is the Right to a series of payments for continuous use : the word **Hire** is generally used when the sum is given in a single payment.

Thus when the owner of land, houses, copyrights, patents, telegraph wires, mint dies, stocking frames, or pews, and other similar property, grants the use of them for a period of time, the **Right** he has to receive a series of periodical payments for their use is always termed a **Rent** : formerly the Right to receive a series of payments on a permanent loan of money was also called a **Rent** ; but this use of the word is not now usual in England, though it still is on the Continent.

When the sum is given in a single payment for a single occasion it is usually called **Hire** : thus a person Hires a horse, or a carriage, or a cab : or a porter.

There is, however, no absolute rule on the subject : if horses and carriages are hired by the year, the sum paid is called Hire and not Rent : and the sum paid for houses and lands is called Rent and not Hire : even though there is only one payment made.

When a person sells an article or disposes of the Right to it for ever, the Price must be sufficient to replace the cost of the article together with the Profit. When he only lets it out for a limited period, the Rent, or Hire, is composed of two parts : one to replace the deterioration of the article, and the other for the necessary profits. From this it follows that the more permanent an article is, the lower will be the Rent or Hire as compared with the Value : because while the Profits remain the same, the deterioration of the article is less during the given time. If it be of a perishable nature, the hire will be high compared to the Value, because the deterioration is greater. Thus the Rent of Land is low compared with its price, because its duration is permanent. The Rent of land is not usually more than 3 per cent. of its Value, sometimes less : the Rent of houses is much higher, usually 7, 8, or 10 per cent., because the deterioration is much greater : the hire of furniture is higher still, usually from 15 to 20 per cent. of their Value, because the

deterioration is much greater : and so on : the hire of plate is very low, because it may be considered as permanent. So the Hire, or Rent, must always be greater as the deterioration increases. From this it is seen that the Rent or Hire of an article is by no means proportional to its Value.

*Every Sum of Money is Equivalent to the Sum of the Present Values of an Infinite Series of Future Payments*

57. The explanation of the Theory of the Value of Land demonstrates a proposition of great importance in Economics. It was seen that the £100,000 given to purchase the estate in land expected to produce £3000 a year for ever, was in reality equal to the Sum of the Rights to the future products for ever. Each annual product has a **Present Value** : and the Value of the land is simply the sum of these Present Values. But the same is evidently true of any Sum of Money whatever. Hence any Sum of money is not only equal in value to a Quantity of goods or services, but also to a **Perpetual Annuity** or Right to receive an infinite series of future profits. Hence an Annuity, or Right to receive a series of future payments, is also an Economic Quantity. And a Sum of Money may be paid to buy an Annuity : and equally, an Annuity may be paid to buy a Sum of Money ; either paid down at once, or at some agreed upon future time.

*The Quantity of Money in any country bears no necessary Relation to the Quantity of other goods in it : nor to their Price*

58. It has often been supposed that the Quantity of Money in a country bears some necessary relation to the Quantity of goods in it : and also that the prices of commodities are determined by the ratio of their quantities to that of money.

Both these doctrines however are erroneous, and this may be easily shown.

*First* : Trade may be carried on without Money, i.e. by Barter : and there being no Money, there of course can be no ratio between Money and other goods.

*Secondly* : even when Money is used a very considerable commerce is always carried on by Barter : traders deal with

each other, and exchange goods according to their Value in money : and in such cases no Money is required.

*Thirdly* : Suppose A and B are indebted to each other : suppose A owes B £10, and B owes A £15, then there are *three* ways in which these Debts may be settled.

1. Each may send a clerk to the other to demand payment in full of his Debt : this method would require £25.

2. A may send £10 to B to discharge his Debt : and B may send it back with £5 more to pay his Debt : this method would require £15.

3. They may meet and set off their mutual Debts, and pay only the difference in Money : this method would require only £5.

It is clear that very different Quantities of Money would be required to carry on any given amount of commerce, according as either of these three methods of settling debts was adopted. Between the first and the third there is a difference of £20 : but there would be no difference in the prices of commodities. These £20 would not influence prices, but only be required to settle Debts in a clumsy way. So it is clear that by a simple change in the method of doing business, £20 may be withdrawn from circulation, and applied to new transactions.

From these considerations it follows that there may be large quantities of Money in a country which may exercise no effect on prices : and the ratio of Money to goods may vary greatly according as one or the other of these methods of doing business is adopted. If a country which habitually adopted the first method changes its custom and adopts the *third*, a large quantity may be released from employment, and applied to promote new operations : and in its practical effects it would be equivalent to an augmentation of the previously existing Money. Hence the various methods of economising the use of Money are to be considered as an increase of the resources of the country. It is one of the great functions of a Bank to promote such a change in doing business : and to bring people together to balance their mutual Debts without the intervention of Money : and it will be seen in a future chapter how greatly the skilful employment of such methods economises and develops the national resources.

**On Payment, Discharge, and Satisfaction**

**59.** The words **Payment, Discharge, and Satisfaction** are often supposed to be identical in meaning ; but they are not so.

The word **Payment** means **Anything** whatever which is voluntarily taken in exchange for anything else.

It is originally from the Sanskrit *Paś*, which is the same root as the Greek *πήγω*, Doric *πάγω*, *πήγνυμι*.

In old Latin this was *pago*, or *paco*, the same as *paciscor* : and also *pango*, *pegi*, or *pepigi* ; or *panxi*, *pactum*, to covenant, agree for, bargain for, stipulate, or come to terms with.

Thus it is said in the Laws of the XII. tables—' *Rem ubi **Pagunt**, orato.*'

*'If they come to terms, let it be settled as agreed upon.'*

*'Ni **Pagunt**, in comitio aut in foro ante meridiem causam conjicito.'*

*'If they do not come to terms, bring the cause before the meeting of the court before noon.'*

Hence *pacare*, to appease, to pacify : whence the Italian *pagare* : and our **Pay**.

**60.** When one person has delivered anything to another person : or done any service for him, he has the Right to have some equivalent, unless it was meant as a donation. But at the same time he has the Right to consider **Anything** he pleases as an equivalent.

Thus, when two persons agree to exchange any material products, each is **Payment** for the other. It is sometimes supposed that when goods are paid for in Money, it is only the **Money** which is the **Payment**. This, however, is an error. The Money is Payment for the goods : but the goods are equally Payment for the money : because each side has got what he agreed to take in exchange for his product.

So when Money is paid as Wages for work : the Money is the Payment for the Work : but the Work is equally Payment for the Money.

So when persons agree to exchange different kinds of work each in Payment for the other.

So when a merchant agrees to take a trader's Bill at three months in exchange for goods, the **Bill** is **Payment** for the goods. It *appeases* the claim of the merchant, because he has got what he voluntarily agreed to take in exchange for the goods. When the Bill becomes due, the trader has to **Pay** his bill, or *appease* the claim which the owner of the bill has for the money.

So if one person has a Debt or Right of action against another, and if he agrees to take his Debtor's bill at three months, the **Bill** is **Payment** of the Debt : and as before, the Debtor has to Pay the Bill when it becomes due.

Hence to **Pay**, means always to appease : when a man Pays his Debts he *appeases* the Right which the Creditor has to demand a sum of money from him : when he Pays his Rent, he *appeases* the Right which the owner of the land, house, &c., has against him for compensation for its use.

But it does not follow that Payment is the final closing of the transaction. The only legal word which denotes the final closing of a transaction is **Satisfaction**. If a bill is taken in exchange for goods, it is **Payment** : but it is not **Satisfaction** until the Bill itself is paid.

If, however, the owner of the Bill neglects to follow up his legal remedy, the Bill becomes not only **Payment** but also **Satisfaction** : by doing so the owner of it makes it Money.

And Economists go further : they say that Money itself is only a higher order of Bill : and that, though giving Money is **Payment**, it is not **Satisfaction** until the Money is exchanged away for something that is desired.

Thus, though a shoemaker is **Paid** when he has got Money for his shoes : yet he has not got a **Satisfaction** until he has got bread, or meat, or wine, or anything else he desires in exchange for the Money.

We have seen that the early Economists expressly pointed out that Money is only an intermediary in exchanges : it is only a general Bill of Exchange, or Right, or Title, to be paid in something else. They only considered the exchange as *Consummé*, or completed, when products had been exchanged against products.

It was formerly supposed that the word **Discharge** had the

same effect as **Satisfaction**, and was the final closing of the transaction. But it has now been decided that **Discharge** means no more than **Payment**, and therefore is not necessarily final.

#### Summary of Definitions

**61.** The student will find it useful to have the results of the preceding investigations condensed in a summary.

**Economics**, or the Science of Wealth, is the Science which treats of the *Laws which govern the Relations of Exchangeable Quantities*. It may also be called the Science of Exchanges, or of Commerce : or the Theory of Value.

**Wealth** is anything whatever whose Value can be measured in Money : or which can be bought and sold ; or exchanged.

**Property** is not a Thing, but a Right : it includes all kinds of Rights which can be exercised over anything : and is equivalent to **Absolute ownership**.

Hence **Wealth**, or **Economic** or **Exchangeable Quantities**, consist exclusively of **Exchangeable Rights**.

**Jurisprudence** is the Science of Rights.

**Economics** is the Science of the Exchanges of Rights.

**Economic Quantities** are of three species—

1. Rights to Material Things, called Corporeal Property.
2. Rights to Labour or Service : usually termed Immaterial Property.
3. Rights to Things to be acquired at a future time : called Incorporeal Property.

**Value.** The Value of any Economic Quantity is any other Economic Quantity for which it can be exchanged.

**Money** is anything whatever which a Debtor can compel a Creditor to take in discharge of a Debt : it is also called **Legal Tender**.

**Credit** is a Right of action against a person to pay or do something.

An **Instrument of Credit** is the written evidence of a Debt.

**Debt** is used indiscriminately to mean the **Right** to compel another person to pay or do something : and also the **Duty** of that person to pay or do that thing.

**Barter** is where commodities are exchanged directly for one another.

**Sale**, or **Circulation**, is where commodities are exchanged for Money or Credit.

**Exchange** is where Quantities of a like nature are exchanged : as commodities for commodities : or Money and Credit for Money and Credit.

**Circulating Medium** is the medium by which Sales or Circulation are effected, and includes Money and Credit of all forms.

**Currency in Law** means anything in which the Property passes by Delivery : it includes Money and written documents of Debt : as a scientific term in Economics, it includes Money and Credit in all its forms.

**Price** is the Quantity of Money or Credit given for any Economic Quantity.

**Interest** is the sum paid for the use of a sum of money at the end of the agreed upon period.

**Rate of Interest** is the sum paid for the use of a sum of Money for a given period.

**Discount** is the Difference between the Present Value of a Debt and its Amount.

**Rate of Discount** is the above Difference with reference to a given Time.

#### **Produce : Producer : Production**

To *Produce* is to offer any Economic Quantity for sale or exchange.

The *Producer* is the Seller.

*Production* is the offering any Economic Quantity for sale or exchange.

#### **Consume : Consumer : Consumption**

To *Consume* is to purchase any Economic Quantity.

The *Consumer* is the buyer or customer.

*Consumption* is the Purchase of any Economic Quantity.

**Supply** is the Quantity of anything offered for sale.

**Demand** means the Desire and the Power to purchase anything : and so may be used to mean the Quantity of anything which is given in exchange for anything else.

**Cost of Production** is the Cost of placing anything in the place where it is offered for sale.

**Profit** is the difference between the Cost of Production of anything and its Value, or the Quantity of anything it can Purchase.

If the Value exceeds the Cost of Production, the Difference is called a **Gain**.

If the Value is less than the Cost of Production, the Difference is called a **Loss**.

**Rate of Profit** is the Amount of Profit made in some given Time.

**Productive Labour** is Labour which leaves a Profit after defraying the Cost of Production.

**Unproductive Labour** is Labour which leaves no Profit after defraying the Cost of Production.

**Capital** is any Economic Quantity used for the purpose of Profit.

*Fixed Capital* is that which remains in the possession of the Capitalist, and from which he derives a Revenue by its use.

*Floating or Circulating Capital* is that which he parts with, and whose Value is restored to him in the Price of the Product.

**Rent** means Revenue, or an Annuity. It is the Right to receive a series of payments for the continuous use of anything.

**Hire** means the sum paid for the use of a thing on a single occasion.

**Payment** means anything whatever which is received in exchange for anything else.

**Discharge** is equivalent to Payment.

**Satisfaction** is anything which is received as final Discharge and closing of any transaction.



## CHAPTER II

## THE THEORY OF VALUE

*Preliminary Remarks*

1. IT has been seen in the preceding chapter that there are **Three** distinct orders of Economic Quantities: (1) Material things: (2) Labour: (3) Rights: the various interchanges of which give rise to **Six** different kinds of Exchange. These constitute the Science of **Pure Economics**, or Political Economy, in its most modern definition. It is also a matter of positive knowledge that there are no more than these **Three** orders of Exchangeable Quantities. Consequently, having generalised our Fundamental Conceptions so as to grasp all those three species by the acknowledged Laws of Inductive Logic, we are sure that our Conceptions cannot be overthrown or modified, because it is a known fact that there is no Economic Quantity which is not of the form of Money, Labour, or Credit.

It has also been seen that *the Value* of any Economic Quantity is any **other** Economic Quantity for which it can be exchanged.

Hence the **Theory of Value** is the investigation of the **Laws which govern the Relations of these Exchangeable Quantities.**

2. The complete Theory of Value comprehends—

1. The Definition of Value.
2. The Origin, Cause, or Form of Value.
3. The General Law of Value: or the General Equation of Economics.

We must now examine each of these separately, and though we wish to avoid controversy as much as possible, it is necessary to notice some misconceptions which are still widely prevalent.

## Section I

*The Definition of Value*

1. Value, in its true and original sense, is a Desire of the Mind: it means Esteem or Estimation: as Glo'ster says in *Lea*r—'In the division of the kingdom it appears not which of the Dukes he Values most.'

So Troilus, in *Troilus and Cressida*—

For what is aught but as 'tis Valued?

So Henry Esmond says—'There is some particular prize all of us Value: and that every man of spirit will venture his life for.'

So J. B. Say says—'Value is a Moral Quality.'

2. But such Value is not an Economic phenomenon. To bring Value into Economics it must be manifested in some tangible form: a person must manifest his Desire, Demand, or Value for something else by giving something in Exchange for it to acquire possession of it.

But as one person cannot gain possession of what another person possesses without giving him something in exchange for it which he Desires, Demands, and Values, it is evident that for an Exchange to take place Requires the Concurrence of two Minds. It is not sufficient that the Demand or Value should exist on one side only. If one person desires to obtain possession of what another possesses, it is not sufficient to constitute a phenomenon of Value that he alone should desire it: he must offer in exchange for it something which that other person Desires or Demands. If a person brought a cargo of wine among a nation of teetotallers, no one would Desire or Demand it: no one would buy it: among such a people wine would have

no **Value** : so among a nation of non-smokers tobacco would have no **Value** : among a nation of vegetarians beef and mutton would have no **Value**. However much a person would wish to sell his product, if no one will buy it, it has no **Value**. For an **Exchange**, or a phenomenon of **Value**, to take place there must be the **Reciprocal Desire** or **Demand** of **Two** persons, each for the product of the other.

When, however, two persons each **Desire** or **Demand** to obtain the product of the other, and when they agree to exchange their respective products, each Product may be considered as the Measure of the desire of its owner to obtain possession of the product of the other. The two products, therefore, reciprocally measure the **Desire** of their possessors to obtain the product of the other : and when these persons have agreed upon the Quantities of their products which are to be exchanged, the two products are said to be of **equal Value**. Each product is **the Value**, or **the Demand**, for the other : and this is the only kind of **Value** with which Economics is concerned.

Hence it is clear that the true **Origin** and **Cause** of **Value** is **Reciprocal Demand**.

Thus let A and B be any two Economic Quantities which are exchanged at any instant : then we may say—

A **valet** B.

or, A is of the Value of B.

or  $A = B$ .

Then B is the Value of A in terms of B : and A is the Value of B in terms of A.

Thus Aristotle says—

ἡ δ' ἀξία λέγεται πρὸς τὰ ἐκτὸς ἀγαθά.

'Now the term **Value** is used in reference to **External things**.'

So it is said in Roman Law—

Res tanti **Valet** quanti **Vendi** potest.

*The Value of a thing is what it can be sold for.*

The Greek word for Value, ἀξία, is derived from ἄγω, one of whose meanings is to **Weigh**, or *be of the weight of*.

So Demosthenes, speaking of some golden goblets, says—

‘ἀγούσα ἐκδοτὴ μνᾶν’—‘each one weighing a mina.’ And he says of the sword of Mardonius—‘ὅς ἦγε τριακοσίουσ δαρεϊκούσ’ ‘which weighed three hundred Darics.’ Hence ἀξία always meant equality, *Weight for Weight*: as when two Quantities are put into a balance and are of equal weight.

So Morocco says in the *Merchant of Venice*—

Pause, Morocco,

And Weigh thy Value with an even hand.

So Le Trosne says that Value is a new Quality which products acquire when men live in society.

‘Products acquire then in the social state which arises from the community of men among each other, a new Quality. This **Quality** is *Value*, which makes products become **Wealth**.

‘**Value** consists in the **Relation of Exchange** which takes place between such and such a product: between such a **Quantity** of one product and such a **Quantity** of another.

‘Price is the expression of Value: it is not separate in Exchange: each thing is reciprocally the price of the merchandise: in a Sale the Price is in Money.’

Hence it is clear that **Value** is a **Ratio**, or an **Equation**: like Distance, or an Equation, it necessarily requires *two* objects.

The Value of a thing is always something **External** to itself. It is absolutely impossible to predicate that any Quantity has Value without at the same time implying that it can be exchanged for something else: and of course everything that can be exchanged for it is its Value in that commodity. Hence any Economic Quantity has as many Values as Quantities it can be exchanged for: and if it can be exchanged for nothing it has no Value.

Hence a single object cannot have Value. A single object cannot be **Distant**: and cannot be **Equal**. If an object is said to be Distant or Equal, we must ask—Distant from What? or, Equal to what? So if any Quantity is said to have Value, we must ask—*Value in What?* And as it is absurd to speak of Absolute or Intrinsic Distance; or Absolute or Intrinsic Equality, so it is equally absurd to speak of **Absolute** or **Intrinsic Value**.

3. But any Quantity may have Value in terms of any other.

Suppose that B as above is 10 guineas : then A may be either of the **Three** species of Economic Quantities. It may be a Watch, or so much Corn, or Timber, or Clothes : or it may be so much Labour, Instruction, or Amusement : or it may be a Debt, or Right of action, or the Funds, or a Copyright, or any other Incorporeal Right. Each of these species of Property is of the Value of 10 guineas : and therefore it manifestly follows that each of them is equal in Value to the others : because *Things which are equal to the same thing are equal to each other.*

The Value of the Money in the pockets of the public is the various products and services it can command : the Value of the goods in the warehouses of the merchants and traders is the Money in the pockets of the public.

The Value of a workman's Labour is the Wages he can earn : the Value of a Professor's lectures is the fees paid by his Students. The Value of the Labour of the Advocate, the Physician, or the Engineer, is the Income he earns.

The Value of an Incorporeal Right is the **Thing Promised** which may be **demandd**.

The Value of a £5 note is five sovereigns : the Value of a Postage Stamp is the Carriage of a Letter : the Value of a Railway ticket is the journey : the Value of a Promise or Pledge to cut a man's hair is the cutting of the hair : the Value of an Order to see the play is the Seeing of the play : the Value of an Order for bread, milk, wine, &c. is the Bread, the Milk, the Wine, &c.

Suppose that the Price of cutting one's hair is a shilling : what difference does it make to me whether I have a shilling or a Promise of a hairdresser to cut my hair? Is it not clear that in this case the Shilling and the Promise are of exactly the same Value to me?

If I want a loaf of bread which costs a Shilling, what difference does it make to me whether I have a Shilling or the Promise of a baker to give me the bread? In such a case the Shilling and the Promise are exactly of the same Value to me.

In short, in the case of every product or service, the Money to purchase it with, and a Promise to render the product or the Service, are of exactly equal Value in each separate case.

Each separate tradesman of course only promises to render some particular product or service : and as the Promise is not demandable from any one else, each Promise has only **Particular Value** : and as that person may become bankrupt or die, the Promise has only **Precarious Value**.

Now what is Money by the unanimous consent of Economists? It is nothing but the generalised **Right** or **Title** to demand *any* of these products or services we may require at any particular time : and as there is always some person who is willing to render these products or services if another cannot, Money has **General** and **Permanent Value** : while each of these Promises has only **Particular** and **Precarious Value**.

Each of these separate Rights then is of exactly the same *Nature* as Money : but is of an inferior *Degree*. But they are Economic Quantities, or Wealth, for the very same reason that Money is. Is it not clear that, if a man had his pockets full of Promises or Pledges by solvent persons to render him all the products and services he might want, he would be exactly as Wealthy as if he had so much Money? And he can always sell and exchange any of these orders, for orders for a different thing, just as he can material chattels. Hence we see the perfect justice of the doctrine of Roman Law—'Under the term **Wealth** . . . **Rights** are included.'

These Rights are the most colossal species of Property in the country : and they are the subject of the most gigantic commerce of modern times, whose mechanism will be fully exhibited in a future chapter.

4. As Value is the Ratio in which any two Economic Quantities will exchange, it is clear that the Value of A in terms of B increases or decreases according to the greater or less Quantity of B that A can purchase : and the Value of B in terms of A increases or decreases according to the greater or less Quantity of A that B can purchase. It is also clear that if from any cause whatever the Value or Ratio between these Quantities has changed, the Value of **both** has changed. It is manifestly as absurd to say that the Value of one Quantity has remained the same, while that of the other has changed, as it would be to say that a Railway Station has remained at the same distance

from a train, while the train has increased its distance from the station.

Moreover, it is as absurd to speak of a Quantity changing its own Value, or keeping its own Value fixed, without stating the article with respect to which its Value has changed, or remained fixed, as it would be to say that an object had changed or preserved its own Distance, or Ratio, without saying Distance from what, or Ratio to what.

Hence it is clear that nothing can have Fixed or Invariable Value unless everything else is Fixed and Invariable in Value as well: because though a Quantity may retain its Value unchanged with regard to a certain number of things, yet if its Value has changed with respect to any other things whatever, the Value of that Quantity has changed.

And as the Value of anything is solely anything else for which it can be exchanged, it is manifest that, if it can be exchanged for nothing, it has no Value. No matter what qualities it may possess, if no one else wants it, and will not give anything for it, it has no more Value for its owner than if he were in the centre of the desert of Sahara. Many persons have almost a difficulty in believing that Money can have no Value: but Smith himself says that, if a guinea could not be exchanged for anything, it would be of no more Value than a bill upon a bankrupt. So Say says that things can only be Valued by an exchange.

So a recent writer, describing the splendour of the houses in some of the remote country districts of Spain, says—'Houses and splendid furniture in such places are nearly *Valueless*: there is no one to hire the former nor to buy the latter.'

*There may be a **General Rise of Prices, but not of Values***

5. Having thus enforced the doctrine that *the* Value of any Economic Quantity is any *other* Economic Quantity for which it can be exchanged, there is only one other thing which need be noticed here.

Price is the Value of a Quantity in Money or Credit only. Now if Money and Credit be increased very greatly in Quantity, the Prices of all things may rise: but they will still preserve their relative Values among themselves. If a loaf of bread and

a pound of meat each cost a shilling, and if, in consequence of the excessive abundance of Money and Credit, they each rise to two shillings, the pound of meat is still of the Value of the loaf of bread. Hence there may be a general rise, or a general fall, of Prices.

But there can be no such thing as a general rise, or a general fall, of Values. Everything can no more rise or fall with respect to everything else than, as Mill says, a dozen runners can each outrun all the rest, or a hundred trees can all overtop one another. To suppose that all things could rise relatively to each other would be to realise Pat's idea of society, where every man is as good as his neighbour, and a great deal better too.

*On the Error of the Expression **Intrinsic Value***

6. We must now say something about an expression which has been the source of enormous confusion in Economics: which has especially obscured the comprehension of the subject of Credit: and no progress can be made in the science until it is entirely exterminated.

All ancient writers clearly understood that the Value of a thing is something **External** to itself, and we have not found in them any trace of such confusion of ideas as **Intrinsic Value**.

It is not easy to determine when the unfortunate expression **Intrinsic Value** came into use. But it arose in this way. When people thought about Value, they looked to some Quality of a thing as its Value. They therefore gradually began to speak of intrinsic Value. So long ago as 1696, an able writer, Barbon, pointed out the confusion which had arisen from mistaking the absolute Qualities of an object for the Quantity of things it would exchange for—

‘There is nothing which troubles this controversy more than for want of distinguishing between **Value** and **Virtue**.

‘Value is only the Price of things: and that can never be certain: because it must be there at all times and in all places of the same Value: therefore nothing can have **Intrinsic Value**.

‘But things have an **Intrinsic Virtue** in themselves, which in all places have the same virtue: the loadstone to attract iron, and the several Qualities that belong to herbs and drugs, some purgative, some diuretical, &c. But these things, though they



may have great **Virtue**, may be of small **Value**, or no Price, according to the place where they are plenty or scarce; as the red nettle, though it be of excellent **Virtue** to stop bleeding, yet here it is a weed of no **Value** from its plenty. And so are spices and drugs in their own native soil of no **Value** but as common shrubs and weeds, but with us of great **Value**, and yet in both places of the same excellent **Intrinsic Virtue**. . . .

‘For things have no Value in themselves: it is opinion and fashion brings them into use and gives them a Value.’

Barbon thus puts his finger on the very phrase which is the curse and the bane of Economics at the present day—the expression **Intrinsic Value**—which is confounding an **Intrinsic Quality** with an **External Relation**.

The following passage from Senior shows how easily able men are betrayed into this error. He says—‘We have already stated that we use the word Value in its popular (?) acceptation as signifying that *Quality in anything which fits it to be given and received in exchange*, or, in other words, to be lent or sold, hired, or purchased.

‘So defined, Value denotes a *Relation reciprocally existing between two objects*.’

Now, the Quality of a melon which fits it to be sold is its agreeable flavour: its flavour, therefore, according to Senior, is its Value: and so defined he says it means that it costs 5s. ! That is, he defines the Quality of a thing to be its Price !

Smith, however, is the principal author of the confusion on this subject in modern times. As we have pointed out in a previous chapter, he begins by defining the Value of a thing to be the thing it will exchange for: he then suddenly changes his idea of Value to the **Quantity of Labour** expended upon obtaining the thing itself. Thus, the **Quantity of Labour** necessary to produce it came to be considered as the Value of a thing, and then Value came to be called **Intrinsic**. This unhappy phrase, **Intrinsic Value**, meets us at every turn in Economics; and yet the slightest reflection will show that to define Value to be something **External** to a thing; and then to be constantly speaking of **Intrinsic Value**, are self-contradictory and inconsistent ideas. And it came to be held that Labour is necessary to and is the cause of all Value.

Thus over and over again it is repeated in Economical treatises that Money has **Intrinsic Value**, but that a Bank Note or Bill of Exchange is only the *Representative* of Value.

Money, no doubt, is the produce of Labour: but Smith himself says that if Money would exchange for nothing it would have no Value: so that after all he comes back to Exchangeability as the real essence of Value. How then can the Value of Money be Intrinsic? How can anything have Intrinsic Value unless it has the things it will exchange inside itself? Money will exchange for anything, lands, corn, houses, carriages, books, &c., and each of these is a Value of the Money: but which of these is its **Intrinsic Value**?

Money remains exactly the same in itself wherever it may be placed: a hogshhead full of sovereigns would have immense Value in the middle of London: but if a man had them in the midst of the Ocean, or on a desert island, where would their Value be?

All Economists admit that a Bank Note payable on demand is of the Value of Money: and why is it so? Simply because it is exchangeable for Money. Hence it is clear that a Bank Note has Value for exactly the same reason that Money has, and for no other, namely, that they are exchangeable for something else. As Daniel Webster said truly—'Credit is to Money what Money is to goods.' Credit is the Right to demand Money, and Money is the Right to demand goods. When Money can be exchanged it has Value: when it cannot be exchanged it has no Value: when a Bank Note can be exchanged it has Value, when it cannot be exchanged it has no Value.

Hence it is clear that the Value of Money and Credit of all kinds is essentially of the same nature: though there may be different degrees of it. A piece of Credit, by the unanimous doctrine of all Jurists, Economists, and Merchants, is an article of merchandise, and an exchangeable commodity, just like Money, or any other goods.

The expression Intrinsic Value is so common that persons are apt to overlook its incongruity of ideas: it is, however, a plain contradiction in terms: and if we use words of similar import whose meaning has not been so corrupted, its absurdity will be apparent at once. Thus, who ever heard of **Intrinsic**

**Distance?** or of an **Intrinsic Ratio?** The absurdity of these expressions is apparent at once: but they are in no way more absurd than **Intrinsic Value**. If we speak of the **Intrinsic Value** of Money, we may just as well speak of the **Intrinsic Distance** of St. Paul's: or the **Intrinsic Ratio** of Five. To say that Money has Intrinsic Value because it is material and the produce of Labour, and that a Bank Note or Bill of Exchange is only the Representative of Value, is just as absurd as to say that a wooden yard-measure is Intrinsic Distance, and that the space between two points a yard apart is the Representative of Distance.

*On the Distinction between **Diminution in Value** and  
**Depreciation***

7. We must now observe the difference between two expressions which, though often used indiscriminately, are essentially distinct: namely, **Diminution in Value** and **Depreciation**. An **Alteration in Value** of any commodity means that the Quantity of it which was considered as the equivalent for a certain amount of another commodity has undergone a change. If corn is at one time worth 40s. a quarter, and at another time worth 60s. a quarter, these two Quantities have undergone an **Alteration in Value**. **Depreciation** means that it is not really of the Quality it professes to be. *Alteration in Value* always refers to some *other* commodity with which it is compared. *Depreciation* is in reference to *itself*. Hence Alteration in Value always refers to External Quantity, Depreciation to Internal Quality—which, however, may affect its external Relations.

If at any time an ounce of gold will exchange for fifteen ounces of silver: and if, owing to a sudden increase in the quantity of silver, an ounce of gold becomes able to purchase twenty ounces of silver, Silver is said to have *fallen in value* with respect to Gold, the quality of the silver remaining exactly the same. Or if, while the quantity of Silver remained the same, gold became extremely scarce, so that an ounce of gold would similarly buy twenty ounces of silver, Gold would be said to have *risen in value* with respect to silver. In either case the result is the same: there is an **Alteration in Value**, or a change

in the Exchangeable relation of the two metals: while each continues exactly of the same Quality.

But if a piece of money, as a sovereign, which ought by law to contain a certain amount of pure gold, does not contain the amount it ought to, it is **Depreciated**; or if a Bank Note which professes to be of the Value of five sovereigns will only purchase four sovereigns, it is **Depreciated**.

These distinctions are of great importance, though they are often overlooked: and they are especially necessary to be observed in all discussions regarding the value of coins which retain the same name through a long series of ages. The pound of Money in the days of William I. really meant a pound weight of silver bullion: and silver was the only money: since then silver has greatly increased in quantity, and other things, such as Gold and Credit, are used as money as well: which have greatly tended to diminish the value of silver. It is said, though of course all such statements are extremely difficult to verify, that silver has fallen to the twelfth part of its value in these times. But not only has the value of silver greatly *diminished*, but also the coinage has been greatly **Depreciated**. The shilling was originally the 20th part of a pound weight of silver bullion: it is now reduced to the 66th part. Hence, not only is silver greatly *diminished in value*, but the coinage is also greatly *depreciated*, and it is often said that, in consequence of these combined causes, the modern shilling is only of the 36th part of the value it was in the time of William I.

These causes affecting the value of coins which retain their names through long periods may act in the same or in opposite directions. In the coinage of England, these two causes acted in the same direction. But they may also act in opposite directions. A coinage may be greatly depreciated, i.e. diminished in quantity, but from the increased value of the material, it may be able to purchase as much as it did in its original state. It is sometimes alleged that this happened at Rome. The first coinage of Rome was of copper, and the metal was found in great abundance for a considerable time after the foundation of the city. The first measure of value was the *as*, which was a pound weight of copper. The *as* was subsequently, about the time of the second Punic war, reduced to the twelfth part of its

weight: and some writers allege that, in consequence of the great scarcity of the metal, it had increased in value so much that the depreciated coinage would purchase as much as the full pound of copper would originally. This may have been so or not: but it in no way affects the argument; it might very possibly have been so.

The same principle applies in many other cases: in a besieged town the vilest garbage has sometimes sold for enormous sums: and damaged corn in one year may sell at a higher price than the best corn in another year.

These considerations greatly affect the public in matters of public debts. The State agrees at a particular time to pay a fixed quantity of bullion for ever, or for a long period of time. Now, even supposing that all other things remain the same, the Value of the money may vary greatly during long periods, either from the increased scarcity or the increased abundance of the metal: and either the State or its Creditors may be grievously affected by these changes.

The Public debt of England has not been sufficiently long in existence to be much affected by this last consideration: but it has been very sensibly felt in perpetual leases granted by Corporations several centuries ago to their tenants: in some cases Rents were fixed in the Money of the period, and in consequence of the great diminution in the Value of Money since that time, the Rents have been little more than nominal at the present time: in other cases the Rents were reserved payable in the value of certain quantities of corn: and so have preserved their due value with other commodities.

*A Standard of Value is Impossible: but there may be a  
Measure of Value*

8. That unfortunate confusion of ideas between the Value of a commodity being the Quantity of another commodity it will purchase, and the Quantity of Labour embodied as it were in the commodity itself, which is chiefly owing to Smith and adopted by Ricardo, has not only led to that mischievous expression **Intrinsic Value**, the source of endless confusion in Economics, but also to the search for something which very

slight reflection would have shown to be impossible, namely, an **Invariable Standard of Value**.

It is as well to explain what those Economists mean who want an Invariable Standard of Value.

If we had a British yard and any foreign measures of length before us, we could at once perceive the difference between them, and if we were told the measurements of any foreign buildings, however remote in age or country, we could by a very simple calculation reduce them to the standard of British measurement; and compare them with the size of our own buildings.

Those Economists who want an Invariable Standard of Value, want to fix upon some single commodity by which they can compare the value of all other things in other countries and ages.

But the least reflection will show that such a Standard is absolutely impossible by the very nature of things. Money is indeed termed the Measure of Value: and so it is in exchanges which are affected at the same time and place. If we are told that a quarter of corn is worth 6s, and that a sheep is worth 6s. at a certain time and place, we should say that they are then and there equal in value.

But such matters are not the result of simple perception by the senses. If a quantity of gold were placed beside a number of other things, no human sense could discern what their Value would be. And the most violent changes in their several values might take place in the market, without there being any visible signs of such a thing. Value is a **Mental affection**: and values are not perceptible by ocular demonstration, but they must be declared by the communication of **Minds**.

Moreover, it is not possible to ascertain the different values of different quantities of gold obtained in different ages and countries. If a quantity of gold coins minted in the time of Elizabeth: an equal quantity minted in China: and an equal quantity minted in the reign of Victoria were placed side by side, what human sense could discern the difference in Value between them? And yet that is what these Economists require who want an **Invariable Standard of Value**. They want something by which they can at once decide whether Gold is of

more value in A.D. 100 ; in A.D. 1400 ; in A.D. 1880 : in England or in China, without reference to anything else.

But the only test of Value is an Exchange : and unless we can effect an exchange, there can be no Value. How can we exchange an ounce of gold in the year 180 for one in the year 1580, or for one in the year 1880? Bailey well says—' Value is a relation between *contemporary* commodities, because such only admit of being exchanged with each other : and if we compare the value of a commodity at one time with its value at another, it is only a comparison of the relation in which it stood at these different times to some other commodity. It is not a comparison of some intrinsic independent quality at one period, with the same Quality at another period, but a **Comparison of Ratios**, or a comparison of the relative Quantities in which commodities exchanged for each other at two different epochs. If a commodity A in the year 100 was worth 2 B, and in 1800 was worth 4 B, we should say that A had doubled its value to B. But this, which is the only kind of comparison we could institute, would not give us any relation between A in 100 and A in 1800 : it would be simply a comparison between A and B in each of these years.

' It is impossible for a direct ratio of Value to exist between A in 100 and A in 1800, just as it is impossible for the relation of distance to exist between the sun at the former period and the sun at the latter period.'

The fact is that all this search after the impossible has arisen from Smith's unfortunate idea that the **Value** of a thing is the **Quantity of Labour** bestowed in obtaining it, which, as we have seen in a former chapter, was adopted by Ricardo. From this idea it followed that, if any Commodity could always be obtained with an invariable quantity of labour, it would be an Invariable Standard of Value : Ricardo admitted that there was no commodity which was always obtained by an invariable quantity of Labour : and, therefore, for that reason alone, he admitted that an Invariable Standard of Value was unattainable.

An Invariable Standard of Value, however, is not only unattainable for the reason given by Ricardo, but it is in itself absolutely impossible by the very nature of things : because Value is a **Ratio** : and a *single Quantity cannot be the Measure of a Ratio*.

A measure of length or capacity is an absolute single Quality: but Value is a Ratio. We may measure a tree with a yard: or a hogshead with a gallon measure; because they are each of them *single* Quantities: but Value is a Ratio: and it is impossible to say that

$$a : b :: x$$

It is manifestly absurd to say that 4 is to 5 as 8, without saying 8 is to what: just as it is absurd to say that a horse gallops at the *rate* of 20 miles, without saying in what time.

Besides, as we have shown before that there can be no such thing as an Invariable Standard of Value by which to measure the variations in value of other things, because by the very nature of things the very condition of anything being invariable in value is that nothing else shall vary in value: and consequently the very condition of there being an Invariable Standard of Value is that there shall be no variations to measure.

But when we consider that Value is originally a **Desire** of the Mind, there may be a **Measure of Value**: because any commodity may be fixed upon to measure the intensity of the **Desire** of persons to obtain something else: but even this is only a measure for contemporary transactions: it cannot be a permanent measure extending through all ages and countries.



### Section II

#### *On the Origin, Source, or Cause of Value*

9. WE now come to the second branch of our inquiry.—What is the **Origin, Source, or Cause**, or, in the language of Bacon, the **Form** of Value, and whence does it originate?

Now, when we are to search for the Cause or Source of Value, it is necessary to understand what we are searching for. There are three distinct orders of Quantities, each containing many varieties which all have value: we must, therefore, look manifestly for some **Single** Cause which is common to them all: and ascertain what that **Single** Cause is by genuine Induction.

As Bacon says—‘But the induction which is to be available for the discovery and demonstration of sciences and arts must analyse nature by proper rejections and exclusions, and then after a sufficient number of **Negatives**, come to a conclusion on the **Affirmative** instances.’—‘Now what the sciences stand in need of is a form of induction which shall analyse experience, and take it to pieces, and by a due process of exclusion and rejection, lead to an inevitable conclusion.’

The first step in this process of induction is to make a complete collection of all the different kinds of Quantities, of whatever nature they may be, which have Value. ‘For whoever is acquainted with Forms [i.e. Causes] embraces *the unity of nature in substances the most unlike*. From the discovery of Forms [Causes] results Truth in Theory and Freedom in Practice.’

Bacon earnestly inculcates as the foundation of all true science a careful collection of all kinds of instances in which the given Nature is found.—‘The investigation of Forms proceeds thus: a Nature being given, we must first of all have a muster or presentation before the understanding of all known

instances which agree in the same Nature, *though in substance the most unlike*. And such collection must be made in the manner of a history, without premature speculation.'

Bacon then exemplifies his method by an investigation into the Form of Heat: and he gives tables of the divers instances agreeing in the Nature of Heat: also where it is absent: and where it appears in different degrees.—'The work and office of these tables I call the Presentation of Instances to the Understanding, which presentation having been made, Induction itself must be set to work: for the problem is, upon a review of the instances, all and each, to find such a Nature as is always present or absent with the given Nature: and always increases or decreases with it: and which is, as I have said, a particular case of a more general nature.'

'We must therefore make a complete solution and separation of Nature, not indeed by fire, but by the **Mind**, which is a kind of divine fire. The first work, therefore, of true induction (as far as regards the discovery of causes) is the rejection or exclusion of the several natures which are not found in some instances when the given Nature is present? and are found in some instances where the given Nature is absent: or are found to increase in some instances where the given Nature decreases: or to decrease when the given Nature increases. Then indeed, after the rejection and exclusion has been duly made, there will remain at the bottom, all light opinions vanishing in smoke, a Cause affirmative, solid, and true, and well defined.'

An indispensable part of Induction is the rejection of erroneous causes.—'I must now give an example of the Exclusion and Rejection of natures which by the table of presentations are found not to belong to the Form (of Heat), observing in the meantime not only each table suffices for the rejection of any Nature: but even any one of the particular instances contained in any of the tables. For it is manifest from what has been said that *any One contradictory instance* overthrows a conjecture as to the Cause.'

10. Bacon has exemplified his process of Induction by investigating the Cause of Heat: our present task is to investigate the **Cause of Value**.

Following the example of the mighty Master, we must begin by making a complete collection of **Instances of Value** : and we must now enumerate all the different kinds of Quantities which have Value. These are—

1. **Corporeal or Material Property.** Under this species are comprised the following different varieties—

Land : Trees : Cattle : Flocks and herds of all sorts : Corn and other fruits of the earth : Houses : Furniture : Clothes : Money : Fish : Minerals of all sorts : Precious stones of all sorts : Pearls : Manufactured articles of all sorts.

2. **Immaterial Property.** Under this species is comprised Labour of all sorts : Agricultural : Artisan : Professional : Scientific : Literary.

3. **Incorporeal Property.** Under this species are comprised the following varieties : Rights of action, or Credits or Debts of all sorts : the Funds : Copyrights : Shares in companies : the Goodwill of a business : the Practice of a profession : Tolls : Ferries : Annuities of all sorts : Advowsons : Ground rents : Shootings : Fishings, &c.

We must now investigate the Cause of Value in all these different Quantities : we must first of all, by a due and systematic course of Rejections and Exclusions, eliminate all intrusive and accidental Ideas which may sometimes accompany Value. And after completing this process of exclusion, we must end by an affirmative, and discover that **Single General Cause** which is common to **All** these different Quantities : which being present Value is present : which, when it increases, Value increases : which, when it decreases, Value decreases : and which, being absent, Value is absent.

*Examination of the Doctrine that Labour is the Cause of, or Necessary to, Value*

11. Now a very popular and widely spread doctrine is that **Labour** is the **Cause of Value**.

Locke, as far as we are aware, was the earliest writer who maintained that **Labour** is the **Cause** of all **Value**.

The doctrine that all Wealth is the produce of '**Land and Labour**' became very common among early writers on Eco-

nomics. Smith constantly repeats the phrase : though he contradicts himself.

Ricardo also adopted Labour as the Cause of all Value : in which he is followed by McCulloch—‘An object which may be appropriated or adapted to our use without any voluntary Labour on our part may be of the highest utility : but as it is the free gift of nature, *it is quite impossible that it can have the smallest Value.*’—‘In its natural state matter is very rarely possessed of any immediate or direct utility, and is always *destitute of Value.* It is *only* through the Labour expended on its appropriation, and on fitting and preparing it for being used, that matter acquires Exchangeable Value, and becomes Wealth.’

Carey also maintains that all Value is due to Labour, and says that the exceptions are so few as only to prove the rule!

**12.** We have now to apply the Principle of the Baconian Induction to investigate the doctrine that **Labour** is the **sole Cause or Source of Value.**

We may lay down this Lemma—

*If Labour is the sole Cause of Value, then whatsoever thing Labour has been bestowed upon must have Value.*

For if there be two things produced with the same amount of Labour, and the one has Value and the other not: then there must be some *other* Cause of Value besides Labour: which is contrary to the hypothesis.

**13.** We will now examine some of the necessary consequences of the doctrine that Labour is the Cause of all Value.

*1. All Differences or Variations in Value must be due to Differences or Variations in Labour.*

This doctrine, however, is contrary to all experience: because there are many material things upon which no Labour was ever bestowed which yet have Value, and also great Differences of Value.

1. The space of ground upon which a City is built has great Value: but which is in no way the result of Labour.

Land in the heart of London has often been known to sell for more than £2,000,000 an acre: quite exclusive of any buildings upon it. But no Labour has been bestowed on it.

As we recede from the centre the Value of Land rapidly diminishes: at Charing Cross it is much less than in the City: and at Kensington much less than at Charing Cross.

Moreover, Land in the same locality has very different Values. A frontage in a main thoroughfare like Regent Street, Fleet Street, Cheapside, or Cornhill is of much greater Value than an equal space of ground in a back street.

How are these differences of Value due to Differences in Labour, when, as we have seen, there has been no Labour at all bestowed on the Land?

As the tide of fashion, population, and wealth flows towards a locality, the ground in it rises rapidly in value: whereas, when a locality is deserted by wealth and fashion, the Value of the Land rapidly diminishes. How are these changes in Value due to variations in Labour, when, as we have seen, the value of these spaces of ground is not the result of Labour at all?

The ground in the centre of London, Paris, Berlin, Vienna, and other cities, has enormous Value. There are other places, now desolate and lonely, which were once the sites of great cities. When the chariots and the horsemen were pouring forth in multitudes from the hundred-gated Thebes, the land in it assuredly had very great Value. So with Memphis, Nineveh, Babylon, and numberless other places. Where is their Value now? Yet the ground remains exactly the same as it ever was. If London, Paris, Berlin, Vienna should come to be as Nineveh and Babylon are to-day, where would the value of the land be? When the future Belzoni or Layard comes from New Zealand to sketch the ruins of St. Paul's from a broken arch of London Bridge, will the ground near what was once the Royal Exchange sell for £70 the square foot?

When a fair is held near a town, persons pay a good rent for leave to erect booths and tents on the common. At other times they would not pay anything: therefore, the simple space of ground has Value at one time and not at others. How can the Value of the land be due to Labour, when it remains exactly as it was?

2. The doctrine that no natural product has Value before Labour has been bestowed upon it, is contradicted by the plainest experience. The proprietor of a coal mine, or a stone

quarry, demands and receives a price for the coal, or the stone, or the marble, as it exists in the mine or the quarry before a human being has touched it.

If a person found a diamond or a lump of gold by chance, would they have no Value? And is it the Labour of picking up which gives them Value?

The Government founds a new Colony, and takes possession of the Land: it is quite common to demand a price or a rent for the land which no person ever touched. How is its Value due to Labour?

In the Midland Counties of England there are many oak trees which would sell for £60 or £100, as they stand upon the ground. They were perhaps self-sown: no person ever bestowed so much Labour upon them as even to sow the acorn from which they grew. How is the Value of such oak trees due to Labour?

But if the very same oak trees were in the centre of a forest in an uninhabited country they would have no Value at all. Are these differences of Value due to Labour?

It is said that in 1810 an oak tree was cut down at Gelas in Monmouthshire, whose bark sold for £240, and the wood for £670: was this Value due to Labour?

Near these oak trees there may perhaps be growing other trees, beeches, elms, ashes, of the same size. But they will sell for very different prices to the oaks. Are these differences in Value of the different trees due to different Quantities of Labour?

3. There are, again, cattle, herds, and flocks of all sorts. These increase and multiply by the agency of nature. How is their Value due to Labour?

Some time ago a large whale was stranded on the shore of the Firth of Forth: it was sold as it lay upon the beach for £70: no human being touched it: how was its Value due to Labour?

Mr. Buckland says—'When examining the cast-off skins of the snakes at the Zoological Gardens, we observed some white-looking substance in a box. This is the *dejecta* of the snakes. It is a perfectly white substance, looking very like plaster of Paris, and is composed of nearly pure uric acid. It is bought

by a doctor (I imagine a chemist) for the high price of nine shillings a pound.' Were the *excreta* of the snake the product of human Labour?

Some time ago when it was the fashion of European ladies to pile huge masses of hair, termed Chignons, upon their heads in imitation of their swarthy sisters of Central Africa, it was not uncommon for a girl's fine head of hair to sell for £5 : was the Value of the girl's hair due to Labour?

II. *If Labour be the sole Cause of Value, then all things produced by the same Quantity of Labour must be of equal Value*

But this doctrine is contrary to all experience. For if it were true, a diamond and the rubbish it is found in ought to be of the same Value ! So a pearl and its shell ought to be of equal Value. A lump of clay ought to be of the same Value as a lump of gold, if obtained by the same Quantity of Labour. If a sportsman were to shoot a pheasant with one barrel and a crow with the other, they ought to be of the same Value. If a fisherman were to catch a salmon and a dogfish together in the same net, they ought to be of the same Value. And similar cases might be multiplied to any extent. Here we have products obtained by exactly the same Quantity of Labour which have manifestly very different Values ; which proves decisively that Labour cannot be the sole Cause of Value.

III. *If Labour is the sole Cause of Value, the Value must be Proportional to the Labour*

But this doctrine is contrary to the most manifest experience. Suppose that a gold digger by good luck found a nugget of gold lying on the surface of the ground ; another digger works for six months and finds an exactly similar one : then, according to this doctrine, the latter nugget ought to be immensely more valuable than the first. Or suppose that some gold were brought from some diggings near the market, and that an exactly equal amount were obtained by enormous Labour among mountains many hundreds of miles off. The latter is of course *produced*, i.e. placed in the market at an

enormously greater amount of Labour and cost than the other. But would it be more valuable? The least experience shows that it would not be so, but that things of exactly the same Quality would be of exactly the same value at the same time in the same market.

*IV. If Labour be the sole Cause of Value, a thing once produced by Labour must always have Value and the same Value*

But this is notoriously contrary to experience : because it is notorious that a thing may have Value in one place and not in another, as the author of the *Eryxias* very clearly showed.

Take a bag of sovereigns among the Eskimos, and where would their Value be? A Professor of Greek or Latin or Mathematics may find his acquirements of great Value in the Universities, but of what Value would they be to him among the Hottentots? A great Lawyer finds his knowledge of great Value to him in Westminster Hall, but of what Value would they be to him among the Patagonians? Even in London itself, if a man labours very hard to acquire a profession and no one employs him, where is the Value of his Labour? If a man had all the medical knowledge in the world, from Hippocrates to Galen and Copland, and no one was ill, what Value would it be of to him? If an author were to publish the most learned and laborious works in the world, and no one would buy them, of what Value would they be of to him?

In fact, to say that Labour is the Cause of Value is to say that an isolated thing can have Value : whereas Value is always relative, and can only occur in society. But if a man Labours ever so hard and no one will buy his products, he is no better off in London than in the Sahara.

If any one were to set up a manufactory of watches, or reclaim land, and grow fine fields of wheat in the centre of Australia, where there was no demand for the watches or the corn, where would their Value be?

Moreover, if Labour be the sole Cause of Value, if a thing is once produced, its Value never could vary : which is Ricardo's express doctrine. But this is contrary to all experience. Because things after they have been produced, and all Labour upon them has been ended, constantly vary in their value from



day to day, and from hour to hour, and from year to year. Thus, pictures by one master constantly rise in Value, and pictures by another master diminish in Value long after the hands which painted them are cold in the grave. The pictures themselves remain exactly the same : it is the taste of the public which has changed.

Ricardo maintains, as we have seen in a former chapter, that the same Labour in manufacture always produces the same Value.

In the reign of George III. there was a very widespread fashion to wear steel shoe buckles : this manufacture employed a very large number of persons. All of a sudden these buckles went out of fashion : the demand totally ceased : and the people employed in making them were thrown into the greatest distress. But, according to Ricardo, the Labour of the men who made the buckles was of exactly the same Value when there was a demand for them, and when there was no demand for them ! Some years ago the fashion of ladies wearing straw bonnets suddenly went out, and the manufacturers of them at Luton, Dunstable, &c., were thrown into great distress. But, according to Ricardo, their Labour was of exactly the same Value when there was a demand for straw bonnets, and when there was none !

Hence we see that even with respect to material things there are many upon which no Labour was ever bestowed which have great Value and different degrees of Value : and even of those upon which Labour has been bestowed the Labour is not the **Form** or **Cause** of their Value.

14. Now, with respect to the second order of Economic Quantities, namely, Immaterial Property, which comprehends all species of Labour, one simple question will suffice—

*If Labour is the sole Cause of Value, what is the Cause of the Value of Labour ?*

15. With respect to the third species of Economic Quantities, namely, Incorporeal Property, or abstract Rights, there are some kinds which are associated with Labour, such as Copy-rights, Patents, the Goodwill of a business. But the same re-

mark applies to them as to material objects with which Labour is associated, that it cannot be the **Cause** of their Value. If a person bestows an enormous quantity of Labour in publishing a work, the law of course may give him the Copyright : but if no one will buy the work, where is its Value ?

So also of Patents : much Labour may have been bestowed in perfecting the machine : but if no one will buy it, where is its Value ?

But there are vast amounts of Incorporeal Property which have Value which are not associated with Labour at all. Thus Rights of action, i.e. Credits or Debts, are not associated with Labour. If a solvent merchant accepts a Bill of Exchange, or a solvent Bank issues Notes, or creates Bank Credits, these Rights of action have Value, as all Economists admit : but where is the Labour bestowed on them ? The Quantity of Credit in this country is something colossal : it far exceeds any other kind of single Property except only the Land, and every Economist admits it to be Valuable Property ; but what Labour was ever bestowed on it ?

**16.** Hence, from the consideration of the foregoing examples, we gather the following results :—

1. That there are vast quantities of Property, both Corporeal and Incorporeal, which have Value, upon which no Labour was ever bestowed.

2. That vast quantities of Property, both Corporeal and Incorporeal, may be produced by Labour, and yet have no Value.

3. That the same quantity of Labour may produce products one of which has Value and the other has no Value.

4. That quantities produced by varying quantities of Labour have the same Value.

5. That things produced by Labour may have Value in some places and not in others ; and at some times and not at others.

6. That things produced by less Labour may have greater Value than things produced by more Labour.

From these indisputable propositions, the result of practical experience and observation, the undeniable inference is—That **Labour** is **not** in any way whatever the **Form** or the **Cause** of **Value** : or even **necessary** to **Value**.

It only happens that in a certain class of cases Labour is associated with Value: or, as Whately said, **Labour** is the **Accident** of **Value**.—And how it is so will be a matter for future inquiry.

Now, by the Laws of Inductive Philosophy, if we could find a single case of Value which was not the result of Labour, that single instance would be sufficient to overthrow the doctrine that Labour is the sole Cause of Value. But, instead of one instance, we have found a multitude of cases: the enormously greater proportion of Valuable Property is not even associated with Labour at all.

In short, there never was any doctrine in science which has received such a crushing and overwhelming overthrow as that Labour is the Cause of Value: and hence we see that that system of Economics which founds its ideas of Value and Wealth on Labour is utterly fallacious.

#### **Materiality not Necessary to Value** .

17. In considering the preceding tables, or enumeration of Instances of Value, we observe that the whole class of Immaterial Quantities, and the whole class of Incorporeal Quantities, have no Materiality, but yet have Value.

Hence it is evident that **Materiality is not Necessary to Value**: it is only in some cases the **Accident** of **Value**.

#### **Durability is not Necessary to Value**

18. We also observe that some things which have Value may last for ever, like the land, statues, gems, &c.: other things may last a very long time, like houses, watches, pictures, &c.: other things have a diminishing degree of permanence or durability, such as clothes, &c.: others have only a very short degree of permanence, such as food of various sorts: while others, such as Labour of all sorts, perish in the very act of production. Now, among Bacon's Prerogative Instances he expressly mentions *Ultimity* or **Limit**, and says—'Nor should extremes in the lowest degree be less noticed than extremes in the highest.' This is the doctrine of the *Law of Continuity*, which says, *that which is true up to the Limit is true at the Limit*: so

things of the least degree of durability are to be included as well as those which have the extremest degree.

Hence we see that **Permanence** or **Durability** is not necessary to **Value** : it is only the **Accident** of **Value**.

#### *On Utility in its Relation to Value*

19. Seeing that the doctrine that Labour is the Cause of Value is untenable, J. B. Say placed the Origin or Source of Value in **Utility**.

The doctrine that Utility is the Cause of Value is in some respects more specious than that Labour is the Cause of Value : because there are many useful things, like land, trees, cattle, &c., which are very useful and have Value, which are not the result of Labour at all. But yet it is liable to the same fatal objections as that Labour is the Cause of Value : for it makes Value some Quality of the thing itself, absolute and inherent : as Say says—' Sans que leur Utilité, leur Valeur Intrinsèque soit plus grande.'—' Sa Valeur réelle fondée sur son Utilité' : and therefore, of course, so long as the Quality remains the same, its Value ought to remain the same.

Many of the arguments which prove that Labour is not the Cause of Value are equally applicable to prove that Utility is not the Cause of Value.

The doctrine that Utility is the Cause of Value is more specious in this respect : that for a thing to be useful it must be useful to some **Person**. But then there is this fatal objection to Utility being the Cause of Value, exactly the same as in the case of Labour : that while the Qualities of the thing itself remain the same, the same thing may be useful at some times and not at others : and in some places and not in others : and to some persons and not to others. Some persons smoke, others abhor tobacco : tobacco has Utility for those who smoke, it has no Utility for those who do not. Some persons drink wine, others wholly abstain from it : wine has Utility for the former and none for the latter : the wine itself remaining exactly the same. When persons are ill, drugs have great Utility : when persons are well, drugs have no Utility : but the drugs themselves remain exactly the same. A tureen full of train oil would

be a great delicacy and highly prized among the Eskimos, but it would probably not have the same Value at the Lord Mayor's dinner. And it would be easy to multiply instances to any amount of things being useful to some persons and not to others : and at some times and not at others : while the things themselves remain exactly the same.

Again, things may be useful and remain the same when some better thing of the same nature comes out, and diminishes and destroys the Value of the first. Our sailing line-of-battle ships were considered the very acmé of perfection : but steam came in and in a short time the old sailing liners were of no more Value than so much wood and iron. Screw line-of-battle ships were then supposed to be the *ne plus ultra* of invention : no one dreamt that anything could go beyond them : but in a very short time another revolution took place, and ironclads superseded the screw liners : and they shared the fate they had brought upon the sailing liners. Railroads destroyed the Value of coaching Property and canals : one book destroys the Value of another : one invention destroys the Value of another.

An eight-oared outrigger is a very useful and valuable thing on the Thames, but of what Use or Value would it be on the Sahara ?

Again, if utility is the Cause of Value, things ought to be Valuable in exact proportion to their Utility. But this is manifestly contrary to the plainest experience : because, however useful a thing may be, it may be so abundant as to have no Value : or an extremely small Value. A familiar instance of this is Water, which is of the very greatest Utility, but its abundant Quantity gives it very little Value. Corn is also most necessary and useful : but it has sometimes happened in agricultural countries which had no communication with others, that an excessive Quantity has been produced in some years, and has rotted on the ground for want of people to eat it, and for want of means of transport to other places. So cattle and sheep are very useful things in themselves for human support : but in the Pampas of South America, and in Australia, in former times, they had multiplied so far beyond the powers of the people to consume them, that the cattle were of no Value beyond that of their hides, and the sheep of no Value except to

boil down into tallow. The recent discoveries, however, in the means of transporting fresh meat will probably greatly raise their Value.

Again, things of no Utility have enormous Value, such as diamonds: and, indeed, instances of this are so numerous, and have been so often quoted, that it is superfluous to cite them.

Very slight reflection will show that Utility is so vague an expression that it cannot be made the basis of Value. But there are also a great many things which have Value, to which it would be a great debasement of the word Utility to apply it to them at all. The depraved tastes and licentious appetites of too large a portion of mankind confer a Value upon things of the most mischievous and vicious nature. It requires the sternest rigour of the Law to put down the sale of obscene pictures and books. While there is a demand for such things, and persons will buy them, such things undoubtedly have Value and are Wealth, equally as the most excellent things. But no one would surely debase the word Utility by applying it to such masses of abomination. But while this continues no Economist can refuse to class them as Wealth.

#### **Demand is the Sole Cause of Value**

20. Seeing that **Labour** and **Utility** altogether fail to stand the necessary tests of Inductive Logic as being the **Cause** of Value, what remains? In what consists the essence of Value? The only thing which ancient writers, Aristotle, the author of the *Eryxias*, the Roman Lawyers: and in modern times the Physiocrats, the Italian Economists, Smith, Condillac, Whately, J. B. Say, and hosts of others have observed—**Exchangeability**. And what does Exchangeability depend upon? If I offer something for sale, what is necessary in order that it should be sold? Simply that some one else should **Desire** and **Demand** it.

Aristotle long ago said that it is *χρεία*, or **Demand**, which binds society together: the author of the *Eryxias* over and over again points out that things are Wealth, *χρήματα*, only where they are **Demanded**, *χρήσιμα*: and things are not *χρήματα* where they are not *χρήσιμα*, demanded.

Here it is quite clear that we have now got to the true

**Source, Origin, or Cause of Value:** it is **Demand**. **Value** is not a Quality of an object, but it is an **Affection** of the **Mind**. Value in Latin is **Estimatio**. The sole Origin, Source, and Cause of Value is **Human Desire**; when there is a Demand for things they have Value: when the Demand increases (the Supply being supposed the same) the Value increases: when the Demand decreases, the Value decreases: and when the Demand altogether ceases, the Value is altogether gone.

Boisguillebert saw this most clearly: he says—' *Consummation* (Consumption or Demand) is the principle of all Wealth.'—' All the revenues, or rather all the riches, in the world consist in Consumption (*Consummation*): all the most exquisite fruits of the earth, and the most precious products, would be nothing but rubbish if they were not Demanded, i.e. Consumed (*Consummés*).'

The Italian Economists are very clear and consistent in showing that Human Wants and Desires are the Cause of all Value. Genovesi clearly points out that the words *prezzo, pregio, stima, valuta, valore*, are words of relation, and not absolute: and that they are not applied to Intrinsic qualities. That though money is the apparent or proximate measure, the ultimate measure to which not only things but their Price is referred, is **Man** himself. Nothing has Value where there are no men: and the very things which have a low value where men are few, have a very high value where there are many people: which is the reason why things and services have a much higher Value in the Capital than in distant provinces.

' Men, however, do not give Value to things or services unless they want them. Hence our Wants are the first Source of the Value of all things: and Price is the power to satisfy our wants. The Wants of men are of three kinds; those of pure necessity: those of pleasure: and those of luxury.' Genovesi then traces the origin of these wants or demands. He says that nothing has Value except in relation to these wants. He shows how prices are always determined by Supply and Demand: and he says **Value is the Child of Demand**.

So Beccaria says—' **Value** is a *substance* which *measures* the **Estimation** in which men hold things.'

We have already shown that the Physiocrats made all Value

proceed from Demand: and they showed that things which remain without Demand (*Consummation*) are without Value.

Condillac is also very clear on this point. He says—'This esteem is called Value.'—'Since the Value of things is founded on the **Want** of them, or the **Demand**, it is natural that a want more strongly felt gives things greater Value: and a want less felt gives them less Value.'—'As soon as we Want a thing it has Value, and only for that reason.'

#### **Value only exists in the Human Mind**

**21. Value**, then, like **Colour**, and **Sound**, and **Odour**, only exists in the **Human Mind**. There is neither Colour, nor Sound, nor Odour, nor Value in external Nature: they exist only in Man.

Not only have all the ancient and foreign writers we have cited declared that **Demand** is the true and only Cause of Value, but Smith, Ricardo, and McCulloch themselves, to whom is due so much the popular doctrine that Labour is the Cause of Value, have, with wonderful contradiction, said the same thing. Thus Smith, after laboriously inculcating that Wealth is the 'annual produce of land and labour,' says afterwards that, unless it is exchangeable, i.e. unless there is a Demand for it, it has no Value at all.

So Ricardo, after maintaining repeatedly that Labour is the Cause of Value, says that it is only a higher price than usual which induces extended Labour.

And McCulloch, after attributing all Value exclusively to Labour, says—'**Demand** may therefore be considered as the ultimate source and origin of both exchangeable and real Value: for the Desire of individuals to possess themselves of articles, or rather the **Demand** for them originating in that Desire, is the sole *cause* of their being produced or appropriated.'

Hence we see that **Demand** is the sole Origin, Source, and Cause of Value. It is Demand, or Consumption, and not Labour, that gives Value to a product. It is not the Labour which gives Value to the product, but the Demand for the product which gives Value to the Labour. Hence, **It is not Labour which is the Cause of Value, but it is Value which**



**is the Inducement to Labour : and it is not the Labour of the Producer which constitutes a thing Wealth, but the Demand of the Consumer.**

We conclude, therefore, that it is not Labour but **Consumption, Exchange, or Demand** alone that constitutes a thing **Wealth** : and we trace the progress of a nation in Wealth according to their increasing Wants and Desires. First, the Demand for the sustenance required by the body gives Value to material products, food, clothing, shelter, and fuel. Then, as their tastes become refined, arises the Demand for works of literature, science, and art : for painting, for sculpture, for architecture, for the drama, for music. And those who minister to these wants of the Mind become wealthy, just as those who minister to the wants of the body. It is the **Demand** of the public alone which makes these things **Wealth**. Hence, in order to be Wealthy, a people must be inspired with strong and various desires : and be willing to Labour to gratify those desires : and this shows the great importance, in an Economical point of view, of national education. Heavy taxes can only be borne by an industrious and wealthy people : and the multiplication of Wants multiplies industry, multiplies capital, multiplies incomes, multiplies the persons able to bear the burden of taxation, and renders the nation capable of great achievements, and of taking a leading position in the councils of the world.

**Section III***Of the General Law of Value : or the General Equation of Economics*

22. Having in the preceding sections given the Definition of Value : and found that its Form or Cause resides exclusively in the **Human Mind** : the last branch of our Inquiry is to determine the **General Law of Value** : or the **General Equation of Economics** : that is to discover a **Single** General Law which governs the changes in the Exchangeable Relations of **All** Quantities, whatever their nature may be, at all times and in all places.

The acknowledged principles of Inductive Science show that there can be but **One** General Law of Value. We have seen that there are three distinct species of Economic Quantities : and we have generalised all the Fundamental Conceptions of Economics to grasp all these Quantities. These three orders of Quantities can be exchanged in Six different ways. Our present object is to investigate a General Equation which shall be applicable to all the **Six** species of exchanges indifferently. The Law which governs the exchangeable relations of material products must equally govern the Exchangeable Relations of Debts.

Suppose we make £ the general symbol of an Economic Quantity—i.e. of anything whose Value can be measured in money—and representing these various species of Quantities under the General Symbol, £, we may say that there are in any country Quantities of this sort—

£347,293,421  
 £516,542,905  
 £ 24,841,320  
 &c. &c. &c.

Now we affirm, by virtue of the *Law of Continuity* and the great Algebraical doctrine of the *Permanence of Equivalent Forms*, that whatever can be proved to be true Economically of any one of this series of Quantities must be true of them all. No one looking at the series of Quantities placed above could tell of what species they were. Some may be land, some corn, some minerals, some ships, some money, some credit, some labour, some shares, some copyrights, and multitudes of other things. Now, there can be but **One Cause** of Value for them all : and we have shown that **Demand** is the single General Cause of all Economic Quantities.

Having then obtained these independent Economic Quantities, the whole purpose and object of the Science is to discover the single General Law which governs the variations of their Exchangeable Relations. It is clear by the principle of the Continuity of Science, and the analogy of all other physical sciences, that however varied and complicated the different phenomena of Value may be, there can by no possibility be more than **One** General Law of Value ; or a single General Equation of Economics : whatever it may be.

#### **Lord Lauderdale's Law of Value**

**23.** Lord Lauderdale, in a work quoted by Ricardo, says that of two Quantities which may each vary, if we suppose the variation to take place in one of them first, the other remaining the same, its Value would be influenced by *four* Causes.

It would **Increase** in Value—

1. *From a Diminution in Quantity.*
2. *From an Increase of Demand.*

It would **Diminish** in Value—

1. *From an Increase of Quantity.*
2. *From a Diminution of Demand.*

Now, as the Variation of the other Quantity will be influenced by the very same *four* causes, it is quite clear that the Variations of both Quantities will be influenced by **Eight** independent Causes : and if these be connected in the form of an Algebraical Equation, that will manifestly be the true **General Law of Value** : or the true **General Equation of Economics**.

This General Equation must manifestly contain the whole science : and as it is in the form of a fraction containing no less than **Eight** Independent Variables, it : at once shows the extremely complicated nature of the science.

**24.** Now, Ricardo admits this Law to be true for all monopolised commodities : and for all others during a *limited* time. But his want of knowledge of the principles of Inductive Science prevented him from seeing that, if it be true of *any* commodities and for *any* time, it must be true of all commodities, and for all times.

The fact is that the Law of Supply and Demand of which the above extract from Lord Lauderdale is the full expression, is admitted by all Economists to be true when the price of things is very low : it is also admitted to be true when prices are very high : it is therefore admitted to be true at the *extremes* of prices : and therefore it is manifest by the *Law of Continuity* that it must also be true at all intermediate points in the range of prices : that is, it must be universally true in all cases.

The **General Equation of Economics** is therefore a **Compound Ratio** of a very complicated nature : and to apply it in particular cases requires a profound knowledge of the circumstances : but yet it is demonstrably true : and the whole science must be constructed taking that Equation as the basis.

In obtaining this General Equation, we have followed the method usual in all Physical science. We have obtained the Independent Variables, and they are connected by a General Law or Formula. This insures Certainty to the science : but it is in the last point that the real difficulty arises, namely, in giving Precision, or Numerical amount, to the Co-efficients. It is difficult, probably impossible, to say what numerical variations in Supply and Demand produce definite variations in Value. This has been attempted in some cases, as in that of corn, but it is manifestly impossible to obtain exact numerical data : and, in fact, though the same General Law is true, the same absolute variations in Supply and Demand of various quantities will produce great differences in the variations of their numerical Values.

It is this difficulty, or rather entire impossibility, of giving

exact numerical value to the co-efficients that makes many persons suppose that it is impossible to make Economics an exact science. It is sometimes supposed that for a science to be an 'exact' one, it is necessary that its laws should be capable of exact *Quantitative* statement. This, however, is an error which has been specially noticed by Comte, who well points out the difference between *Certainty* and *Precision* in science. To constitute an exact science it is not necessary that its laws can be ascertained with numerical precision, but only that the **Reasoning** be **exact**, or certain. He says that a dangerous prejudice has sprung up: that because the precision of different sciences is very unequal, that their certainty is so too. This tends to discourage the study of the most difficult: Precision and Certainty are perfectly distinct. An absurd proposition may be very precise: as for instance that the angles of a triangle are equal to three right angles. On the other hand, a certain proposition may not be precise, as that a man will die. Hence, although the different sciences may vary in precision, that does not affect their certainty. This observation applies very forcibly to Economics. Some persons are apt to despise it because it does not bring out its results with the same numerical precision as those of Mathematics. This, however, is a grievous mistake. In Economics the Causes of phenomena can be ascertained with absolute certainty: and if we want to produce any required effect, the method of producing it can be pointed out with absolute certainty. This is all that is necessary to constitute an *exact* science: because the method of producing the result being pointed out with Certainty, we have only to put it in force until the required result is produced.

In considering the General Equation of Economics, we see the application of Bacon's aphorism, 'that which in Theory is the Cause in Practice is the Rule.' No other Quantities but Demand and Supply appear on the face of the Equation: we therefore learn that no other Causes influence Value or changes of Value, except **Intensity of Demand** and **Limitation of Supply**. We learn that neither Labour nor Cost of Production can have any *direct* influence on Value: and that if they do so *indirectly*, it can only be by and through the means of affecting the Demand or the Supply: and that no change of Labour or

Cost of Production can have any influence on Value unless they produce a change in the relation of Supply and Demand.

By this means we are enabled to create a rigorously *exact* Theory of Economics : and by reverently following the precepts of the mighty prophet of Inductive Philosophy, and the examples of the immortal creators of the various Inductive Sciences, it is seen that Economics as a Moral Science is fitted to take rank by the side of Mechanics and Optics as a great **Positive Inductive Physico-Moral Science.**

## CHAPTER III

## THE THEORY OF THE COINAGE

1. HAVING in the preceding chapters investigated the fundamental conceptions of the Science of Economics and ascertained the General Law which governs the varying relations of Economic Quantities, our next step is to investigate the Theory of the Coinage. Economics is the Theory of Value in general ; but universal custom has found the convenience of expressing Values in one medium, viz., Money or Credit. It therefore naturally follows in the natural order of the subject, that we should commence the Deductive or practical part of the science by investigating the Theory of Money and Credit. We shall in this chapter investigate the Theory of the Coinage ; and in the following one the Theory of Credit.

2. We have in the first chapter explained the circumstances out of which the necessity for Money arose, and shown that many substances have been used by different nations for this purpose, but that Metal has advantages superior to any other substance ; and of metals, Gold, Silver, and Copper have been chiefly preferred. Gold and Silver in a perfectly pure state, however, are far too soft to be used for this purpose, and it is necessary to mix some other metal with them to harden them, which is called Alloy. By a chemical law, when two metals are mixed together, the mixture is harder than either of the metals in a pure state.

Gold and silver in the mass are called **Bullion** ; but as the laws of all countries which use Gold and Silver as Money define the quantity of alloy which is to be used with the pure metal, we shall henceforth use the word **Bullion** to mean gold or silver in the mass mixed with such a proportion of alloy as is ordered by law, so as to be fit to be made into Money.

3. The purity of Gold is measured by 24th parts, termed **Carats** ; and ever since the 6th Edward VI. (1553) the Bullion used for the gold coinage has been 22 carats of pure gold and 2 carats of alloy. This is called **Crown Gold**. The standard of Silver Bullion was fixed by William the Conqueror at 11 oz. 2 dwts. fine, or 222 dwts. of pure silver, to 18 dwts. of alloy, and except during a short period of confusion, from the 34th Henry VIII. (1543) to Elizabeth, has never been departed from. It is called the 'Old right standard of England,' or '**Sterling** ;' and as the Sovereigns of England, though they reduced the weight of the Coin, never, with the slight exception just mentioned, tampered with the purity of the metal, Sterling came to signify honest and true, or to be depended upon.

In France and those countries which have adopted decimal coinage, Bullion is made of 9 parts fine metal and 1 part alloy, but it is found in practice that the English proportion gives greater durability to the metal, and therefore is better for a coinage.

4. Some nations have used simple Bullion as money, but the merchants of those nations were obliged to carry about with them scales and weights to weigh out the Bullion on each occasion. This was usual among the Jews. In some countries it was necessary both to weigh and assay the Bullion at each operation, which was, of course, a great impediment to commerce. Other nations adopt a more convenient practice. They cut the bullion into pieces of a certain definite weight, and affix a public stamp upon it, to certify to the public that these pieces of Bullion are of a certain weight and fineness. These pieces of Bullion with a public stamp upon them, to certify their weight and fineness, and called by a publicly recognised name, and intended to be used in commerce without further examination, are called **Coins**.

5. The inconvenience of using masses of Bullion as money is so obvious, and the expedient of cutting it into pieces of definite weight and fineness, seems so simple, that we should naturally have expected that it must have been quickly invented by those nations who first began to use Gold and Silver Bullion



as money. This, however, was certainly not the case. Silver and Gold were used as money for ages before coining was thought of: and there is every reason to believe that coining was invented by a people who, before the invention, did not use gold and silver as money; and coining was practised by them for centuries before it was adopted by nations who had used these metals as money for ages.

This stamp or certificate, of course, in no way affects the Value of the metal, or the Quantity of things it will exchange for. Its only object is to save the trouble of weighing and assaying the bullion in commercial transactions. Nor can the *Name* of the Coin in any way affect its *Value*. Values, it is true, are estimated in the number of these pieces of bullion, or Coins: but it is necessarily implied in the bargain that these Coins contain a certain definite quantity of bullion.

It is also perfectly evident that if this process of stamping bullion, and so turning it into Coin, is done free of all expense, at the will of any one who chooses to present bullion and demand to have it stamped, and also without any delay, the Value of metal as Bullion must be exactly the same as the Value of the metal as Coin.

If, however, a charge is made for the workmanship; or if any tax is levied on changing the metal from one form into another; or if any delay takes place in doing so, there will be a difference between the Value of the metal as Bullion and as Coin, equal to the charge for workmanship, the tax, and the amount of interest accruing during the period of delay.

These, however, are all fixed or constant quantities, which may be ascertained, and they form the limits of the variation of the value of the metal in one form to its value in the other form.

In the following remarks we shall assume that there is no charge for the workmanship, no tax, and no delay in doing it: no obstruction, in short, of any form to changing the metal from one form to another.

Upon these assumptions, then, we have this fundamental principle of the Coinage—

*Any quantity of Metal in the form of Bullion must be of exactly the same Value as the same quantity of Metal in the form of Coin.*

In the case of the Coinage of England, no charge of any sort is made for coining Gold Bullion : but as a considerable delay may take place before any one who brings Bullion to the Mint can have it coined, the 7 & 8 Vict. (1844) c. 32, s. 4, enacts that every person may take standard Bullion to the Bank of England, and that the Bank shall be obliged to give him Notes to the amount of £3 17s. 9d. for every ounce of such Bullion. And as the holder of Notes may demand legal coin for them, at the rate of £3 17s. 10½d. per ounce, there is thus practically a difference of 1½d. per ounce between Gold Bullion and Gold Coin.

6. In the times of the Homeric poems there was certainly no money in use. And the words significative of wealth in Homer give no preference to gold and silver above other things. On the contrary, they are comparatively seldom mentioned. The Homeric words expressive of wealth more frequently refer to cattle, or horses, or agriculture. Thus we have *πολύρρην, πλουβούτης, πολύϊππος, φιλοκτέανος, πολυπάμων, ἄφνειος, πολυκτῆμων, πολυλῆϊος*. In 'Iliad' vii. 180, and xi. 46, are almost the only instances in which gold is especially alluded to as Wealth, *πολυχρύσοιο Μυκῆνης*. When the Greek and Trojan leaders send spies to discover the plans of the enemy, neither of them promises money as a reward. Nestor, 'Iliad' x. 215, promises the successful spy a black ewe with its young, a matchless gift ; and Hector, x. 35, promises on his side a chariot and a pair of horses.

Most authorities consider that the Homeric poems were written about the ninth century B.C. ; though many would place their origin, at least, at a much more remote date. At that period, therefore, there was no money of any sort in Greece, nor were gold and silver ever referred to as measures of value ; when the convenience of referring things to a common measure of value was first thought of oxen were used for that purpose, as we have seen in a previous chapter. But some time after the Homeric poems, though we have no means of conjecturing when, a money of a curious nature came into general use throughout Greece. Large iron or copper nails called *δβελισκοι*,

of such a size that six of them constituted a handful, were used as money.

In the eighth century B.C. Argos was the most powerful state in Greece, and was the metropolis both of the Peloponnesian and Asiatic Dorians. At this period Pheidon of Argos was the most powerful sovereign of Greece, and held the island of Ægina in his dominion. The Dorians carried on a very extensive commerce with the Phenicians, and Pheidon adopted a system of weights from them, which were afterwards called the Æginæan. At the same time he replaced the clumsy iron and copper nails in use as money by a silver coinage. He struck a coinage of silver to represent the value of a handful of these clumsy nails, hence it was called *Δραχμή*. Hence the standard unit of the Grecian coinage was always called a drachma, and the smaller coins were *δβελαι*. Pheidon collected a number of these iron and copper nails and laid them up in the Temple of Juno at Argos as a curiosity.

The Spartans, probably out of jealousy of the Argives, steadily resisted the use of silver money, and adhered to the use of their old iron nails.

Herodotus says that the Lydians were the first nation who coined Money of a mixture of gold and silver. This mixture was called *ηλεκτρον*, and was composed of different proportions of gold and silver, but usually three parts of gold to one of silver. The coins of the western states of Asia were of this material. There are several of these electrum coins in the British Museum.

*On the Meaning of the Mint Price of Gold and Silver*

7. As the very purpose of coining is to certify that the pieces of Bullion are of a certain definite weight and fineness, it is evident that a fixed quantity of Bullion, such as a pound weight, must be divided into a fixed number of coins.

*The Number of Coins into which a given quantity of Bullion is divided by Law, is called the Mint Price of that quantity of Bullion.*

The Mint Price of Bullion is thus simply the amount of coin which is equal to any quantity of Bullion, weight for weight.

By the Law at present in force forty pounds weight of standard gold bullion are divided into 1869 coins called Pounds or Sovereigns ; hence one pound weight of gold Bullion is coined into £46 14s. 6d. : or, as the value of gold is estimated by the ounce, one ounce of gold bullion is coined into £3 17s. 10½d., and this is termed the **Mint Price** of gold.

The legal weight of the Pound or Sovereign is 5 dwts.  $\frac{171}{623}$  grains, containing  $113\frac{1}{623}$  grains of pure gold. Sovereigns which fall below 5 dwts.  $2\frac{3}{4}$  grains, and half Sovereigns which fall below 2 dwts.  $13\frac{1}{2}$  grains cease to be legal tender.

In the time of William the Conqueror the pound weight of Silver Bullion was coined into 240 pence : hence the Mint Price of Silver was £1 per pound ; but in the time of Elizabeth the pound weight of Silver Bullion was coined into 744 pence, or the ounce weight of Silver was coined into 62 pence : hence, as 240 pence are still called a Pound, the *Mint Price* of Silver Bullion was £3 2s. per pound, or 5s. 2d. per ounce.

*To alter the Mint Price of Bullion is merely an expression which means an **Alteration** of the **Legal Weight** of the Coinage.*

To suppose that the Mint Price of Bullion could vary is manifestly as great an error as to suppose that a hundredweight of sugar can be a different weight from 112 separate pounds weight of sugar ; or that any quantity of wine in a hogshead could differ in quantity from the same quantity of wine in bottles ; or that a loaf of bread could alter its weight by being cut up into slices.

*It is not an Economic Error to **fix** the Mint Price of Bullion*

§. We must now say a few words with respect to an error which is by no means infrequent. It is now acknowledged by every one that it is a great Economic error to *fix* the Price of any articles. It used formerly to be the custom to *fix* wages and the prices of various commodities ; but such attempts have long been abandoned as futile and mischievous. It is sometimes contended that it is an equal error to *fix* the price of gold. But those who affirm this overlook a very important consideration. The word '*price*,' except in the single instance of '*Mint Price*,' always denotes the quantity of an article which is used

as a measure which is given for another article of a *different* nature. Thus we say that the Price of a bushel of corn is 6s. ; where the Silver, the substance in which prices are measured, is of a different nature from the corn. But in the expression 'Mint Price' of Bullion, it always means the value of Bullion in coin of the *same* metal. Thus the Mint Price of gold bullion means its weight in *gold* coin ; the Mint Price of Silver Bullion means its weight in *silver* coin.

Hence by the very definition, the Mint Price of Gold Bullion merely means the identical quantity or weight of Gold Bullion in another form : and by the very nature of things the Mint Price of Bullion is a fixed quantity. If the law requires an ounce of gold to be coined into £3 17s. 10½d., that amount of coin must be exactly of the same value as an ounce of gold, no matter whether gold becomes as plentiful as iron or as scarce as diamonds ; for that quantity of coin is always exactly equal to an ounce of gold ; whatever be the scarcity or the abundance of Bullion. The value of gold may vary with respect to other things ; it may purchase more or less bread, or wine, or meat, at one time than another ; but it is absolutely impossible that an ounce weight of gold in the form of coin can differ in value from an ounce weight of gold in the form of bullion. To suppose that it could, would be as irrational as to suppose that because bread became very abundant or very scarce, a loaf of bread could differ from itself in weight when cut up into slices, or that a cask of wine could differ from itself when drawn off into bottles.

The Mint Price of gold, therefore, is nothing more than a public declaration of the weight of metal the law requires to be in the Coin. An alteration of the Mint Price of Bullion means an alteration in the standard weight of the coin, and would be the same thing in principle as an alteration in the standard yard measure. Those who ridicule the idea of having the Mint Price of gold fixed, should, to be consistent, ridicule the idea of having the standard yard measure fixed.

*On the Meaning of the Market Price of Gold and Silver*

9. The Mint Price of Bullion is, as we have seen, simply the number of coins into which a certain quantity of Bullion is

coined ; consequently, so long as the coins continue of their full legal weight, they are always of the value of that quantity of bullion. But when Coins have been some time in circulation they must necessarily lose some of their weight from the wear and tear of daily use, even if they be not subjected to any bad practices such as clipping, which used to be done to a great extent formerly in this country. But these coins may circulate for a considerable time in a country, and lose a good deal of their weight, without losing their value. People were so accustomed to the sight of a particular coin, that unless they were money dealers, they did not stop to inquire too curiously whether it were of the proper weight or not. In fact, when coins have been some time in use, few people know what their legal weight is. Many, for instance, do not associate the idea of a pound with any particular weight of bullion ; and thus, in exchange for products and services, coins may pass at their nominal value long after they have lost much of their weight ; as Posthumus says in *Cymbeline* :—

‘Tween man and man they weigh not every stamp,  
Though light, take pieces for the figure’s sake.’

But when coins are given in exchange for Bullion the case is different. The Value of Bullion is measured weight for weight with Coins ; consequently, if the coins have lost their legal weight, a *greater number* of them must be given to purchase a given amount of bullion than if they were of full weight. Thus if the Mint Price of Silver is 5s. 2d. per ounce, that quantity of coin ought by law to weigh an ounce : then if the coins have lost their proper weight, it is clear that *more* than 5s. 2d. must be given to buy an ounce of bullion. It might perhaps take 6s., or even more, to buy an ounce of bullion.

The quantity of coin at its full legal weight which is equal in weight to a given weight in bullion is called its **Mint Price** ; but the quantity of the *current* coin, which is actually equal to it in weight, is called the **Market Price**, and as, if the coins have lost their legal weight, *more* of them must be given than if they are of full weight, the Market Price will apparently be higher than the Mint Price, and this is called a *Rise of the Market Price above the Mint Price*.

Suppose that at any time the Mint Price of Silver were 5s. 2d. an ounce, and the Market Price were 6s.; this would merely mean that 6 shillings weighed no more than 5s. 2d. ought to do; and therefore that the current coinage is deficient of about  $\frac{1}{8}$  of its legal weight. Thus in reality it is clear that the rise of the Market Price is due to the **Depreciation** of the Coinage.

Hence we obtain this fundamental law of the Coinage. *When the Market Price of Bullion rises above the Mint Price, the Excess is the Proof and the Measure of the **Depreciation** of the Coinage.*

In fact, the apparent rise of the Market Price of Bullion is due to exactly the same cause as has made the Mint Price of Silver apparently rise from £1 in the days of William the Conqueror to £3 2s. in the present day. It is merely that the same quantity of bullion is cut into a greater number of pieces; and consequently each piece must be proportionably diminished in weight, or depreciated.

The Market Price of Bullion could never fall below the Mint Price, unless there were more bullion in the coin than there ought to be; and in such a case the difference of the Market Price below the Mint Price would of course indicate the excess of the coin above their legal weight.

*If a change takes place in the relative Value of the Gold and Silver Coins, to determine whether it is due to an **Alteration** in the Value of the two metals, or to a **Depreciation** of the Coinage*

10. The considerations we have presented will enable us to solve a question of great practical importance. When both metals were used concurrently as Money, the value of the silver coinage used to change with respect to the gold. Thus Guineas were originally coined to be of the value of 20s. in silver: but in the reign of William III. guineas rose to 28s. and 30s.: and at the same time silver bullion rose from 5s. 2d. to 7s. an ounce. One party stoutly contended that this was due to the scarcity of silver. Now this assertion was absurd on the face of it; because if silver had become very scarce as compared to gold, it is quite clear that silver would have *risen* as compared to gold, and not *fallen*. That is, instead of guineas being worth 28s., they ought

to have been worth less than 20s. From the figures given above, this assertion was self-contradictory, because as compared with gold, silver had apparently *fallen* in value, and as compared with silver money it had apparently *risen* in value.

But as the variation might proceed either from a *Diminution in Value* of Silver as compared to Gold, or from a *Depreciation* of the silver Coinage, we are enabled to devise a test which shall enable us to decide to which of these causes it was due.

It is quite clear that a *Diminution in the Value* of the coin cannot produce any difference between the Mint Price and the Market Price of Bullion: because by the very meaning of the word Mint Price, however plentiful or however scarce silver may be, an ounce of it in coin must always be exactly equal in weight or Value to an ounce in bullion.

On the other hand, a *Depreciation* of the coinage must inevitably produce a rise in the Market Price of bullion above the Mint Price: because, however plentiful or scarce bullion may be,  $\frac{3}{4}$  of an ounce of it in coin can never be equal in weight or value to an ounce of it in bullion.

The case may be shortly stated thus—Guineas may rise to 28s. in silver either from a *Diminution in the Value* of silver, or from a *Depreciation* of the Silver Coinage. What is the test? It is to be found in the Market Price of silver. If the silver coinage is Depreciated the Market Price of silver will rise above the Mint Price: if it is a mere Alteration in the Value of silver, it will not.

Evidently, however, both circumstances may take place. There may be an Alteration in the Value of the metals as well as a Depreciation in the Silver Coinage at the same time. And it is quite easy to devise a test in such a case: because the Depreciation in the silver coinage is measured by the difference between the Market and the Mint Price of silver: and thus the Value of the Coinage being rectified, it is quite easy to see whether it has changed in its relation to gold.

#### *On Gresham's Law of the Coinage*

**11.** We have now to notice a Law of fundamental importance in the Theory of the Coinage.

Aristophanes first noticed the fact at Athens that when a



debased Coinage was issued along with a good Coinage, the good Coins all disappeared from circulation, and the debased ones alone remained.

This fact, which has been invariably observed in all countries and ages, was long the puzzle of financiers and statesmen. Formerly the Coinage in this country used to suffer very much from clipping and other bad practices. Repeated attempts to remedy the evil were made by issuing new Coin from the Mint without withdrawing the debased Coin: but all these efforts were unavailing: the good Coins invariably vanished from circulation, and the bad ones alone remained. Sir Thomas Gresham first explained the cause to Queen Elizabeth; hence we have called it **Gresham's Law** of the Coinage.

This Law is well expressed in an old pamphlet—thus—

*'When two sorts of Coins are current in the same nation, of like Value by denomination, but not intrinsically, that which has the least Value will be current, and the other as much as possible hoarded,'* or exported. Which may be expressed more shortly thus—*Bad money always drives good money out from circulation.*

The reason of this is plain. If full-weighted and depreciated Coins are allowed to circulate together, one of two effects must necessarily follow. Either those persons who have commodities to sell will make a difference in their nominal price according as they are paid in good or in light coin: that is, the light coin will be at a discount as compared with the good coin: or if there be a law to prevent this, and to make both to pass at the same nominal value, every one will endeavour to discharge his debt at the least possible expense. He will always try to pay his debts in the light coin. As values are always estimated by the weight of the metal, a law which declares that light coin shall be of the same value as heavy coin is as great an anomaly as a law to declare that in Arithmetic three shall be equal to four. But the consequence is plain: if the Law of this country declares that four ounces of silver shall be of the same value as three ounces, the possessors of the light coins always pay them away in preference to the heavy ones, and bullion dealers collect all the full-weighted coins they can, and export them to foreign countries, where the coin passes at its full value. Thus the

good coin quickly disappears from circulation and the bad alone remains.

Moreover, no one will bring bullion to be converted into Coin. During the degraded state of the silver coinage during the last century, the Market Price of silver always exceeded the Mint Price : Smith says that the Market Price of silver ranged from 5s. 4d. to 5s. 8d. per ounce before the recoinage in 1774 : and the second Report of the Lords' Committee of Secrecy, in 1797, says—' But as the Mint Price of silver bullion has been, during the whole of the present century, considerably less than the Market Price of this precious metal, *the silver bullion imported could not be converted into Coin*, but, having left a quantity sufficient for the use of our manufacturers, must have been again exported, and did not contribute in the smallest degree to augment the Coin of this kingdom.'

It is from this principle that a Paper Currency is invariably found to expel a metallic currency of the same denomination from circulation. And to show the generality of the principle, it was found in America that when a depreciated Paper Currency had driven all the Coin out of circulation, and a still more depreciated Paper Currency was issued, the more depreciated paper drove out the less depreciated paper from circulation.

#### *What is a Pound?*

**12.** Sir Robert Peel once asked the question—What is a Pound?—and he found many who could give him no answer. We have now to explain how a certain weight of Gold bullion has come to be called a **Pound**.

The original Measure of Value in all the countries of Western Europe, France, England, Scotland, Italy, Spain, was the Pound weight of Silver Bullion. No coin of this actual weight was ever struck : but the Pound weight was divided into 240 coins called Pence, *Denarii* ; twelve of these pence were called a Shilling, or *Solidus*, and therefore 20 shillings a *solidi*, actually weighed a Pound of Silver Bullion.

Now let us denote the Pound Weight of metal, in the form of Bullion, by the symbol—**℔** : and the Pound weight of metal, in the form of Coin, by the symbol—**£** ; then we have—

$$240 \text{ pence} = 20 \text{ shillings} = \text{£}1 = 1 \text{ ℔.}$$

Now if the Pound weight of metal were divided into more than 240 pieces, it is clear that that greater number of pieces would still be equal to the Pound weight : and if we denoted 240 pieces by the symbol £, irrespective of their weight, we should have the 1 lb = £1 + the number of pieces above 240.

Now this is what has been done in the Coinage of all the countries above-mentioned. The sovereigns of these various countries were frequently in want of money to pursue their various extravagances. As they could not increase the quantity of the metal, they adopted the fraudulent plan of surreptitiously cutting the Pound weight of bullion into a greater number of pieces. But they still called them by the same name. By this means they gained an illusory augmentation of wealth. As they could not increase the quantity of the metal, they at various periods *falsified the certificate*. While they still called the Coins by the same name. Thus the quantity of bullion in each penny was diminished.

The consequence of this was manifest. As 240 pence were still called a Pound in money, or £, whatever their weight was : and as more than 240 pence were coined out of the Pound weight of bullion, or lb, the £, or Pound of metal in Coin, began to vary from the lb, or Pound of metal in Bullion. Edward I. began this bad practice in 1300, and coined 243 pence out of the Pound weight of metal : in 1344 Edward III. coined 266 pence out of the Pound of metal : in 1412 Henry V. coined the Pound into 360 pence : and so it gradually crept up until Elizabeth, in 1601, coined the Pound weight into 744 pence.

Then we have manifestly—

$$744 \text{ pence} = 62 \text{ shillings} = £3 \text{ 2s.} = 1 \text{ lb.}$$

As there are 12 ounces in one Pound weight of bullion, it is evident that each ounce was coined into 62 pence : and as the value of bullion is measured by the ounce, the Mint Price of silver was said to be 5s. 2d. the ounce.

In Scotland this Depreciation of the Coinage began about the same period as in England, but it proceeded to much greater lengths. In 1306 Robert Bruce coined the Pound weight into 252 pence : in 1451 James II. coined the Pound weight into 768 pence, or £3 4s. : and this depreciation was increased until

at last, in 1738, the Pound weight was coined into 8,928 pence, or £37 4s. : and thus the Pound Scots became equal to twenty pence.

In France and Italy the depreciation proceeded twice as far as in Scotland : the French Livre and the Italian Lira became at last only equal to 10*d.* The French livre, which is now called a franc, has been adopted as the basis of the decimal system of coinage : and the original *solidus* has now dwindled to the *sou*, or halfpenny.

13. Henry III. endeavoured to introduce a Gold coinage, but it failed. In 1344, however, Edward III. reintroduced it, and since then Gold has been permanently coined in England. But the Gold coins were always ordered to circulate at a fixed ratio with respect to silver : and as the ratio fixed by the Mint seldom agreed with the ratio of gold and silver in the open market of the world, the gold coinage constantly disappeared in accordance with Gresham's hitherto undiscovered Law. In the reign of Charles II. the African company brought home a large quantity of gold from the Guinea coast. He coined this gold into pieces which he called Guineas, which were intended to be of the value of 20*s.* in silver, so as to represent the Pound. But the Mint rating did not correspond with the market Value of gold and silver, and the silver coinage became exceedingly debased, so that guineas rose to 28*s.* and 30*s.*, and rapidly disappeared. This was to a certain extent rectified by the great recoinage of the silver money in 1697 : but still a considerable error prevailed. In 1717 Newton, Master of the Mint, reported to Parliament that the true Value of the Guinea was 20*s.* 8*d.* in silver. Nevertheless, Guineas were declared to be current at 21*s.* : and then, in the language of the Mint, Gold was fixed at £3 17*s.* 10½*d.* per ounce.

Gold and silver coin were then declared to be legal tender for debts to any amount. But as gold was overrated by 4*d.* in the £, and silver was underrated by the same amount, merchants in the course of the last century universally adopted the plan of paying their debts in gold in preference to silver, as being the cheaper medium. And, in accordance with Gresham's Law, the silver coins were exported, as being below their true

value in this country. Gold thus became the recognised measure of value in England, though the exchanges were reckoned in silver : and for exactly the opposite reason, silver became the recognised measure of value in France.

At the great recoinage in 1816 this custom was adopted as Law : and gold was declared to be the only legal measure of value and legal tender to an unlimited amount : and the Sovereign was struck to represent the value of 20s. in silver, or the £.

14. Ever since the time of Charles II. the coinage of gold has been free to the public : but by the Act relating to the coinage in 1816, the coinage of silver and bronze is retained in the hands of the Government. In order to obviate the effect of Gresham's Law, the value of silver is artificially raised. Since 1816 the pound weight of silver has been coined into 66 shillings : but four of these are retained for the expenses of coinage : and the 62 lighter shillings are declared to be of the same value as the previous heavier ones. Thus 20 of them are declared to be equal in value to the sovereign : and thus their value is artificially raised about 6 per cent. But to prevent injustice being done, they are not legal tender for any sum above 40s., it having been intended to have made the double sovereign the monetary unit.

The Bronze coins are only worth about one-fourth of their nominal value : pence and halfpence are only legal tender for the value of one shilling : and farthings to the value of sixpence.

## CHAPTER IV

## THE THEORY OF CREDIT

*Preliminary Observations*

1. HAVING in the preceding chapter explained the Theory of the Coinage, we next come, in the natural order of the subject, to the Theory of Credit. Credit is supplementary and auxiliary to money. It effects exchanges and affects prices exactly in the same way as so much money : and consequently it is impossible to understand the Theory of Prices without a thorough comprehension of the Theory and mechanism of the great system of Credit. What Steam is in Mechanics, what the Differential Calculus is in Mathematics, that is Credit in Commerce.

‘Credit,’ says Daniel Webster, ‘is the vital air of modern commerce. It has done more a thousand times to enrich nations than all the mines of all the world . . . . Credit is to Money what Money is to articles of merchandise.’

So also an able French writer, Gustave du Puynode says—‘However fruitful have been the mines of Mexico and Peru, in which for a long time after Columbus seemed buried the fortune of the world, there is yet a discovery more precious for humanity, and which has already produced more wealth than that of America—that is the discovery of **Credit** : a world altogether imaginary : but vast as space : as inexhaustible as the resources of the mind.’ These descriptions are undoubtedly true. But if Credit in modern times, when rightly used, has produced these wonderful effects, there is unfortunately a reverse to the medal : and Credit when misused has produced catastrophes of corresponding magnitude. False Theories of Credit and the abuse of Credit have produced monetary cataclysms which have

shaken nations to their foundations, and whose direful effects have only been equalled by those of the volcano and the earthquake. It is, therefore, of the deepest national importance to investigate and establish the true Theory of Credit.

The whole principles of Credit, upon which the modern system of Credit and Banking rest, were developed by a long series of illustrious Roman Lawyers ; and their doctrines were declared to be Law by the Legislation of Justinian, and were adopted and confirmed by the Reformed Code called the **Basilica** in the 10th century : and they have been the Mercantile Law of Europe for 1,300 years. But, though they are explained at length in all the great Continental Jurists, from that unfortunate aversion which the Common Lawyers of England for so long entertained against Roman Law, they were comparatively unknown in this country, though adopted by the Court of Chancery.

The Romans abandoned Britain in the early part of the fifth century : and the Common Law of England on the subject of Credit, was exactly as it stands in Gaius, which was the text-book of Roman Law throughout the Empire at that period. But by the Supreme Court of Judicature Act the rules of the Common Law were superseded on November 1, 1875, by the Rules of Equity, which are simply the Law of the Pandects and the Basilica.

In this chapter we shall give an exposition of the complete Theory of Credit, as developed in the Pandects, and Basilica, and by all the Continental Civilians, which was long adopted in Mercantile practice, and has at length become the Law of England.

The investigation of this subject, moreover, opens up another most interesting branch of inquiry. For a century and a half Mathematicians have been in the habit of giving Debts as an example of **Negative Quantities**. But very few have given any explanation of what they mean by calling a Debt a ' Negative Quantity : ' and those who have attempted it, from a want of knowledge of the principles of Mercantile Law and the facts of commerce, have entirely failed in giving an explanation which can be received as suitable for Economic Science.

It is well known that, though mathematicians have been in

the habit of using the Algebraical Signs for several hundred years, it is only within the present century that the Theory of these signs has been completely worked out. We must therefore explain the Theory of Algebraical signs, and the general principles of their use in Mathematics and Natural Philosophy, and then give an exposition of the facts of commerce, and discover what interpretation of the signs is suitable for the circumstances of Economics.

The Roman Lawyers, as we have said, brought the Theory of Credit to perfection in the beginning of the sixth century. These doctrines are of course expressed in words. But we shall find that Jurists working separately; Algebraists working separately: and the practice of Mercantile men acting separately and independently; are all in perfect harmony with each other. And when we fuse these three together—an exposition of the facts of Commerce—an exposition of the Law of Credit—and show the application of the Theory of Algebraical Signs to these facts and juridical principles, we shall find a most beautiful example of the use of these signs strictly in accordance with their use in Natural Philosophy: and we shall see how rigorously Economics is a Physical Science. We shall be able to remove an obscurity in the Theory of Credit which has puzzled Divines and Jurists for centuries, and we shall be able for the first time to bring Economic Theory to the level of Mercantile practice.

*On the Juridical Theory of Credit as developed by the Roman Lawyers*

2. If it were asked how that wonderful people, the Romans, commencing with a petty village, gradually extended their empire over so large a portion of the world, it would probably be said that it was due to their hardihood and discipline. But probably a cause which has been entirely overlooked contributed in no slight degree to the result. It was their wonderful and methodical habits of business.

When the practice of writing became common, it was established as a custom or law that every *Dominus*, or head of a house, should keep a family ledger, as strict and exact as those



of a modern banker. In this he was obliged to enter all his receipts and disbursements: all sums of money borrowed and lent: all trade profits and losses: and these family ledgers were the only legal evidences of debt among Roman citizens received in Courts of Justice. And it is from these family ledgers that the whole of the modern system of bookkeeping and Credit has been developed.

It seems that every occurrence was first noted down in *adversaria*, or note books: and at the end of every month formally recorded in the family ledger, called the *Tabulæ* or *Codex*, which was intended to be preserved as an heirloom in the family. Every five years the *Dominus* was obliged to swear to their truth before the Censors, and they were regarded almost with a species of sanctity.

It was by the evidence of loans and contracts recorded in these family ledgers that the *Obligatio litteris*, or written contract, was created.

The entry of the person's name in the *Codex* or *Tabula* was termed *Nomen*. Hence **Nomen** became the usual word for a **Debt**. *Nomina sua exigere* is to get in one's Debts: *nomina locare* is to borrow money: *nomen facere*, to lend money.

The entries in the *Codex* were called *arcaria nomina*, because the money was weighed out of the *arca*, or chest.

When the parties agreed that an entry of money lent and borrowed should be made, the lender made an entry of money weighed out and given (*pecunia expensa lata*): and the borrower made an entry of money received (*pecunia accepta relata*): and thus was constituted the *Obligatio litteris*, or written Contract.

Hence arose the technical legal terms *expensum ferre*, to lend money: *acceptum referre*, to borrow money: *pecunia accepta relata*, money borrowed: and the ledger was called *Codex accepti et expensi*: and *nomen facere* was to create this kind of Obligation.

Debts might be transferred by the consent of the Creditor, the Debtor, and the Transferee: when the new Debtor was substituted for the former one it was called *Nomen transscriptitium*: and the Contract was termed a *Novatio*: because the old contract was extinguished by the new one.

If a person had contracted an Obligation by the loan of money, it was called *Obligatio re*: a duty arising from the advance of the thing. But if the parties agreed, a contract by entry in the *Codex* might be substituted; and then it was called *a re in personam transcriptio*, a transfer from the thing to the person. When the Debt was transferred from one person to another, it was said *a personâ in personam transcriptio fit*.

When payment of the Debt was made, the same formalities were gone through. The Debtor brought the money, and having delivered it, asked the question—‘Have you received what I promised to you?’ the Creditor answered—‘I have:’ and entered it as received: this was termed *Acceptilatio*.

If the Creditor wished to release the Debtor from the Debt, the form of *Acceptilatio* was used: because when the formality had been once gone through, it was absolutely binding, and a final close of the transaction: and could not be questioned. Hence it was equally a *solutio* of the Obligation, whether the money was really paid or not.

The other methods of solution were *Novatio* and *Compensatio*, which are explained in a subsequent section.

### *On the Roman Bankers*

3. The Romans seem, as far as we are aware, to have been the inventors of the business in modern language termed ‘Banking.’

From an early period there were shops built by the State round the forum, but leased out to private persons, for the convenience of exchanging the money of strangers for Roman money. Their shops were called *Tabernæ*, *Mensæ*, and *Argentariæ*, and they themselves were called *Argentarii*. For changing money they charged a commission named *Collybus*.

On this species of business they subsequently ingrafted others.

They received money from private persons in deposit. In this case they acquired no Property in the money: but they held it subject to the directions of the depositor. The banker paid no interest on this deposit, because he was not allowed to trade with it: and it was called *vacua pecunia*. When the depositor wished him to make a payment for him, he either gave

him personal directions to whom it was to be paid, or he gave the payee a cheque.

To this they added the business which is technically termed 'Banking:' they received money as a personal loan, and paid interest for it: this money therefore necessarily became their property: and they had the right of trading with it as they pleased: as modern bankers do.

Hence the person who paid money in this way into his banker's acquired a mere Right of action, or Credit, in his books. To give a customer Credit was termed *scribere*. Thus Leonida says in the *Asinaria* of Plautus—

'Abducit domum ultro et scribit nummos.'

'Of his own accord he takes him home and gives him a Credit for the money.'

*Perscribere* or *rescribere* was to give a cheque on one's account, or to transfer a Credit from one account to another.

As Demipho says, in the *Phormio* of Terence—

'Sed transi sodes ad forum, atque illud mihi argentum rursus jube rescribi, Phormio.'

PHORM. 'Quodne ego perscripsi porro, illis quibus debui.'

'But Phormio, pray go over to the forum and order that money to be put to my account.'

PHORM. 'What! that for which I have already given Cheques to my Creditors?'

So Cicero says—'Qui de cccc. Hs. cc. presentia solverimus, reliqua rescribamus.'

'Of the remaining 400 sesteritia I have paid 200 in cash, and I shall send a Cheque for the rest.'

So Horace—'Quod tu nunquam rescribere possis.'

'Which you can never repay.'

*Acceptum ferre* was to credit a customer with money received: *expensum ferre* to debit him with money paid.

So Plautus says, in the *Mostellaria*—'Ratio accepti et expensi inter nos convenit.'

'The accounts between us balance.'

The Cheque which the customer gave was called *attributio* or *prescriptio*: we have no information as to whether the payee could transfer this cheque to any one else, or whether it was only payable to himself.

4. It is to these Roman bankers that the invention of Bills of Exchange is due. As the Romans extended their conquests they established correspondents in foreign cities; and when a Roman wanted to travel they gave him Bills on their correspondents. This system was well established in the time of Cicero: he writes to Caninius Salustius—

‘Se ait curasse ut cum quæstu populi pecunia permutaretur.’

‘He says that he has taken care that a **Bill** should be sent for the money along with the people’s share.’

*Permutare* was to give a Bill of Exchange.

So when his son was going to Athens, which was the University of the Roman world, he writes to Atticus—

‘Sed quæro, quod opus illi sit Athenis, permutarine possit, an ipsi ferendum est.’

‘But I wish to know whether he can take a **Bill** for the money he will want at Athens, or whether he must take the money itself with him?’

So also—‘Quare velim cures ut permutetur Athenis quod sit in annum sumptum.’

‘Wherefore I wish you to take care that he has a Bill on Athens for his yearly expenses.’

So again—‘Ut vereor ne illud quod te permutavi versurâ mihi solvendum est.’

‘So that I fear I must borrow money to pay the **Bill** you cashed for me.’

In classical Latin *permutare* is the only word that we are aware of for drawing Bills of Exchange. But about the end of the first century, a provincial Latin word, *cambio* (-ire or -iare), which appears as *campare* in Ennius, to exchange, began to be used by Columella and Siculus Flaccus: it gradually came into common use, and was used by Amuleius, Charisius, and Priscian. In the middle ages it completely superseded *permutare* in its meaning of exchanging money and bills. The words *Cambitor*, *Cambiator*, and *Campsor* gradually superseded *Argentarius*, *Mensarius*, and *Nummularius*: hence our word *Cambist*: Bills of Exchange in the middle ages were called *Litteræ Cambitoræ*: and when *Bancherius* came into use, they were called *Litteræ Bancales*, bankers’ drafts.

*On Transferable Documents of Debt*

5. The entries in the family ledgers were the only legal evidences of Debt among Roman citizens. Gaius expressly says that written documents of debt were only used by foreigners.

The Romans began to a certain extent to be familiar with transferable documents of debt ; because they were used to give Cheques on their bankers : but of course these were mere orders and not Obligations : and we are not aware how far such documents were admissible in Courts of Law.

When Gaius says that the Romans did not use written Obligations, he most probably means that they were not recognised as legal documents available as evidence in a Court of Law : for there is abundant evidence that written Obligations were in common use.

The Greeks invented the plan of recording Obligations on a written form. Thus *χειρόγραφον*, *Cheirographum*, or Note of hand, was a simple acknowledgment of a Debt subscribed by the Debtor alone, and given as a security to the Creditor : hence *Cheirographarius Creditor* was a Creditor who had a written security for his Debt : and this term is used in French jurisprudence. *Συγγραφή*, *Syngrapha* was a Bond subscribed in duplicate by both parties, and of which each had a copy. These words frequently occur in Cicero's letters. Thus he says :—

‘Quando vestræ cautiones infirmæ sunt, Græculam tibi misi cautionem cheirographi mei.’

‘Since your securities are not valid, I have sent you as a Security my Promissory Note in the Greek form.’

The difference between a *Cautio* and a *Cheirographum* seems at first to have been that the *Cautio* was a simple acknowledgment of the Debt ; whilst a *Cheirographum* was an actual Obligation : and by itself formed a Contract, equivalent to the Roman *Stipulatio*.

In the times of the early Emperors the family ledgers had begun to fall into disuse : and by the time of Justinian, had been entirely entirely discontinued, except in the case of bankers. And as the family ledger fell into disuse the *Cautiones* acquired greater force ; and at last became legal documents upon which an action might be founded.

Thus the Title of *Nomina transcriptitia*, or Transferable Debts, came to be exclusively applied to the *Cautiones*, *Cheirographa*, and *Syngraphæ*: and thus we have the complete modern system of Bills of Exchange and Promissory Notes. And all the fundamental principles which govern these instruments are contained at length in the Pandects.

## Section I

## ON THE NATURE OF CREDIT

**Personal Qualities are Wealth**

1. We have seen that in ancient times the author of the *Eryxias* proved that **Personal Qualities** are to be included under the term **Wealth**, *χρήματα, πλούτος*.

In modern times Smith and all Economists of note since his time, Say, Senior, Mill, and others, include Human Abilities, Energy, Skill, and Character under the term **Wealth**, because men can make a Profit by their use. They may be summed up under the title of **Moral** or **Personal Capital**.

**Personal Qualities** may be used as **Capital**, or so as to produce a Profit, in two distinct ways—

1. By their direct exercise as **Labour**: which we shall consider in a future chapter.

2. They may be used as **Purchasing Power**: to purchase Goods or Labour, by giving a *Promise to pay* at a future time, instead of actual money, in exchange for them. **Personal Character**, used in this way as **Purchasing Power**, is in popular language termed **Credit**.

Personal Credit has been recognised as Personal Property or Wealth by most eminent writers.

Thus Demosthenes says—

‘*δυσὶν Ἀγαθοῖν ὄντων πλούτου τε καὶ τοῦ πρὸς ἅπαντας πιστεύεσθαι, μείζον ἔστι τὸ τῆς πίστεως ὑπάρχον ἡμῖν.*’

‘*There being two kinds of Property, Money and General Credit, our greatest Property is Credit.*’

So also—*εἰ δὲ τοῦτο ἀγνοεῖς ὅτι Πίστις Ἄφορμὴ τῶν πασῶν ἔστι μείστη πρὸς χρηματισμὸν, πᾶν ἂν ἀγνοήσεις.*’

‘*If you were ignorant of this, that Credit is the greatest*

**Capital** of all towards the acquisition of Wealth, you would be utterly ignorant.'

Thus Demosthenes expressly classes **Personal Credit** under the terms ἀγαθὰ, Goods; ὑπάρχων, Property: and ἀφορμή, **Capital**.

So Melon says—'To the calculation of Values in Money there must be added the current **Credit** of the merchant, and his possible **Credit**.'

So Dutot says—'Since there has been regular commerce among men, those who have need of Money have made Bills, or Promises to pay money. The first use of Credit therefore is to represent Money by Paper. The usage is very old: the first want of it gave rise to it. It *multiplies* specie considerably: it supplies it when it is wanting: and which would never be sufficient without the **Credit**: because there is not sufficient Gold and Silver to circulate all the products of nature and art. So there is in commerce a much larger amount in Bills than there is specie in the possession of the merchants.

'A well-managed Credit amounts to tenfold the funds of a merchant: and he gains as much by this Credit as if he had ten times as much Money. This maxim is generally received among all merchants.

'**Credit** is therefore the greatest **Wealth** to every one who carries on commerce.'

So Smith says—'Trade can be extended as Stock increases: and the **Credit** of a frugal and thriving man increases much faster than his stock. His trade is extended in proportion to the amount of **Both** [i.e. his **Stock** and his **Credit**] and the sum or amount of his Profits, is in proportion to the extent of his trade: and his annual accumulation in proportion to his Profits.'

So Junius says—'**Private Credit** is **Wealth**.'

So Franklin says—'**Credit** is **Money**.'

So Mill says—'Everything forms therefore a part of **Wealth** which has a **Power of Purchasing**.'

He also says—'For **Credit**, though it is not productive power, is **Purchasing Power**.'

Also—'The amount of **Purchasing Power** which a person can exercise is composed of all the Money in his possession, or



due to him (i.e. the Bank Notes, Bills, and Notes he has), and of all his **Credit**.'

Also—' **Credit**, in short, has exactly the same **Purchasing Power** with **Money**.'

And also numerous other passages to the same effect.

Hence, if Mill expressly defines **Wealth** to be **Everything** which has **Purchasing Power**—

And if he says that **Credit** is **Purchasing Power**—

Then the necessary inference is that **Credit** is **Wealth**.

That is a syllogism from which there is no escape.

2. Hence it is seen by the direct statements of all these writers, and innumerable others might be cited if necessary, that **Mercantile Character** is **Purchasing Power**, and is **Personal Capital**: because it is used as well as Money to purchase Goods and Labour with. And if a man can purchase Goods, Labour, or Money with his **Personal Credit**, then his **Credit** has a **Value** *which is measured in money*, as well as that of any material chattel.

Hence **Mercantile Character** is Wealth, Valuable Property, and may be used as **Capital** as well as any material chattels.

Also a merchant's character, or Credit, may be damaged and injured by false reports, just as his material chattels may be damaged and injured by material violence. To damage a Merchant's Credit is to injure and destroy his **Purchasing Power**, and is consequently as much loss and injury to him as the loss of so much actual money. And he has an action against any one who injures his Mercantile Character, equally as he has against any one who injures his material chattels.

So distinctly is Character recognised as Property in Roman Law, that it is classed under the **Jura in rem**: and an attack on it is an **Injuria**, or the infringement of a legal right.

Hence it must be carefully observed that **Mercantile Character** or **Credit** is **National Wealth**.

#### *On the Creation of Obligations*

3. Mercantile Character or Credit is now universally admitted to be Purchasing Power or Wealth. But as Value, or Demand, does not enter into Economics unless a person mani-

festes his **Value** or **Demand** for something by giving something to obtain possession of it: and when he does give something that *Something* is termed the *Value* or the *Demand* for the other Quantity: so Mercantile Character, or Credit, does not enter into Economics until the merchant actually exercises his Credit by making a purchase with it.

Now, when a merchant makes a purchase with his **Credit**, it is not a 'loan' of Capital, as is so often erroneously asserted: it is an absolute **Sale**; just as much as if the purchase had been effected with money. The Property in the goods is ceded to the merchant as fully and effectually as if he had paid for them in money.

But at the very instant that the Property in the goods passes to the merchant, a **Contract**, **Nexum**, or **Obligation** is created between the two parties, the Buyer and the Seller of the goods, which consists of two parts.

1. The **Right to demand** payment in the Person of the Seller.

2. The **Duty to pay**, in the Person of the Buyer.

These two Quantities constitute the Contract or Obligation, which is the Bond of Law between these two persons.

In this Contract, or Obligation, it is the Creditor's **Right to Demand** payment at the given time, which in Law, Commerce, and Economics is termed the **Credit**.

Thus Ortolan says—' Under the first point of view a Personal Right is termed by us a Debt (*créance*): among the Romans *Nomen*, less generally **Creditum**.'

Now this Right of action, or **Credit**, is **Property**: it may be bought and sold, or exchanged, like any material chattel: and thus we see the force of Roman Law—' Under the term **Wealth** . . . **Rights** are included.'

Hence it is seen that a Credit is the Name of a certain species of Incorporeal Property: it is always a Right of action against a **Person** to pay or do something: a Credit in bank is a Right of action against the bank for a sum of money: a letter of Credit is a letter giving the bearer the Right to demand a sum of money.

When these Rights of action merely exist in the person of the Creditor, and are not embodied in any material, they are

termed **Verbal Credits** : when they are recorded on Paper in the form of Bank Notes, Cheques, Bills, &c., they are termed **Paper Credit** : when they are recorded in traders' or bankers' books, they are termed **Book Credits**, or **Book Debts**.

It may be observed that the word Obligation is often used to mean only the Debtor's *Duty to pay* : but Von Savigny has clearly pointed out this error : the Obligation is the **Bond** between the two parties : and includes the Right as well as the Duty : it is, in fact, synonymous with *Contract*.

It is sometimes supposed that the subject of Credit and Banking is peculiarly mysterious and difficult of comprehension. But in reality the whole difficulty consists in grasping the conception that a Credit is an Economic Quantity, and a species of Property, Merchandise, or Goods, or a Commodity, exactly similar to a bale of cotton, a quarter of corn, or a ton of coals, a horse, or a table, and may be bought and sold precisely like any other goods. And not only may a Credit be exchanged against goods, but also one Credit may be exchanged against another Credit : just as one piece of goods may be exchanged against another piece of goods. And every person can make a catalogue of his Rights precisely as he can make a catalogue of his other goods and chattels.

It is also to be observed that Mercantile Character, or Credit, is Purchasing Power over and above Money : and that all the Credits or Rights of action put into circulation beyond Money are a mass of Circulating Medium, or Currency, over and above and additional to Money.

Thus Byles, J., says—'This species of Property is now in aggregate Value inferior only to the land, or funded debt of the kingdom.' This sentence was originally written fifty years ago ; and it may be safely asserted that the mass of Credit in circulation at the present time several times exceeds the funded debt of the country.

*Division of Opinion among Jurists on the Case of the Debtor  
in an Obligation*

4. When an Obligation has been created between two persons by the sale of goods as described above, the case of the Creditor is clear : he has in exchange for his goods received a

Right of action: this is his Property: which he can sell or exchange for other goods like money; or he can sell it for money.

But a strong division of opinion exists among Jurists as to the case of the Debtor in the Obligation. When he has bought the goods and given his Promise to pay three months hence for them, is he in Debt at the present time? The great Roman Lawyers unanimously say that he is in Debt, but that the Remedy is deferred. The maxim of Roman Law is *Debitum in presenti solvendum in futuro*. And some great English lawyers seem to adopt this view.

But English Law appears to take a different view. If an action be brought for the payment before the Credit has expired, it is a maxim of English Law that *Credit unexpired may be pleaded under the General Issue*: that is, the defendant may reply that he is not in Debt at all.

So Mr. Pitt Taylor says—'In addition to these examples, it may be observed that whenever the Defendant can show that in fact *no Debt ever existed* before action brought, he may do so under the plea of never indebted. Thus, for instance, if the action be for goods sold and delivered, he may defend himself under this plea by proving that *they were sold on Credit which was unexpired when the action was commenced*.'

And it appears to us that this is the correct view. When a merchant agrees to take a three months' Bill in exchange for goods, and receives it, he is **Paid** for the goods: he has received what he agreed to take: it is the common mercantile expression that the goods have been **Paid** for by a Bill. Consequently there is no Debt, or Duty to pay money, till the Bill has matured.

An exactly similar case is in taking a house for three months: there is no Debt on the part of the tenant till the end of the three months.

But whatever may be the theoretical view, the practical effect is exactly the same. The goods have become the actual property of the buyer, and his *Duty to pay* three months hence is no diminution of his present property. He has the absolute disposal of it in the meanwhile: and the Creditor has no Right to any portion of it; or to prevent him dealing with it in any

way he pleases. Consequently, there are both the Right of action, and the goods, or the money, circulating in commerce at the same time.

The consequence of this is that the Debtor's *Duty to pay* has no effect in Economics: it is absolutely latent: and may be treated as non-existent, and may be entirely neglected. It is not an Economic Quantity at all: as no one would buy it. Many persons would buy a Right of action, but no one would ever buy a *Duty to pay*: hence it does not enter into the Science of Exchanges at all: it is nothing but a memorandum that the Debtor has to make a future Exchange at a given time.

#### *On the Three Ambiguities in the Theory of Credit*

5. We must now notice Three Ambiguities in the Theory of Credit, which have been the cause of much error, and against which it is necessary to warn the student.

**First Ambiguity.**—*A Debt is not Money owed by the Debtor, but the Personal Duty to Pay Money.*

When an Obligation is created by the transfer of the Property in Goods, or Money, the **Right to demand** payment is the Credit, and the **Duty to Pay** money is the **Debt**.

This is the first Ambiguity which the student must beware of. It is very often supposed that a Debt is Money in the possession of the Debtor which is pledged to the Creditor, and to which he has a Right.

This, however, is a very great error, and has misled many persons, as we shall see hereafter.

This very common error is expressly provided against in Roman Law. It is said in the Digest—

‘Obligationum substantia non in eo consistit ut aliquod corpus nostrum faciat: sed ut **alium** nobis adstringit ad dandum aliquid.’

‘The essence of an Obligation does not consist in this, that it makes any specific **Goods** our Property: but that it binds some **Person** to give us something.’

This error has been fully explained by all eminent Jurists, and it is so widespread and so important, that it is of the utmost

consequence to eradicate it: and we shall give some extracts from Jurists to fix it more clearly on the student's attention.

Pothier says—'The Right which the Obligation gives the Creditor of proceeding to obtain the payment of the thing which the Debtor is obliged to give him is Not a *Right* in the thing itself (*jus in re*): it is only a Right against the **Person** of the Debtor for the purpose of compelling him to give it (*jus ad rem*). The thing which the Debtor is obliged to give continues to belong to him, and the Creditor cannot become proprietor of it except by the delivery, real or fictitious, which is made to him by the Debtor in the performance of his Obligation.

'And till this delivery is made the Creditor has nothing more than a **Right** of demanding the thing, and he has only that Right against the **Person** of the Debtor, who has contracted the Obligation.

'Hence it follows that if my Debtor, after contracting an Obligation to give a thing to me, transfers it upon a particular title to a third person, whether by sale or donation, I cannot demand it from the party who has so acquired it, but only from my Debtor. The reason is, as the Obligation does not, according to our principle, give the Creditor any Right in the thing which is due to him, I have not any Right in the thing which was due to me that I can pursue against the person in whose hands it may be found.'

So Austin says—'If you owe me money determined in point of quantity, I have also a Right to the acquisition of a thing, but strictly and properly speaking, I have not a Right to a *thing*. I have a Right of compelling *you* to deliver or pay me moneys which are not determined in *specie*: and as yet are not mine, though they will be determined *in specie*, and will become *mine* by the act of delivery or payment.

'In this case the nature of the Right is obvious. For as there is no determinate thing upon which it can possibly attach, it cannot be a Right to a thing.'

So Mr. Williams says—'Every person who borrows money on mortgage or not incurs a **Debt** or **Personal Obligation** to repay if out of whatever means he may possess.'

The distinction is perfectly plain, and of the greatest importance in Economics: for if the Creditor had the Right to

any specific money in the Debtor's possession, that would be a diminution of the Debtor's Property: he would have no Right to sell or part with it: and there would in fact be only *one* Economic Quantity in existence, i.e. the quantity of money. But, as a matter of fact, the whole of the money remains the Debtor's Property, which he can sell or exchange as he pleases: and also there is the Property, or Right, in the person of the Creditor, which he also can sell or exchange as he pleases: and which may be sold or exchanged any number of times, till it is paid off and extinguished. Hence in this case there are two Economic Quantities in existence, which may each circulate in commerce at the same time.

If the Creditor's Right were the Right to a specific sum of money in the debtor's possession, it would follow that a person could never be insolvent: because if he had no money, his Creditor could have no Right: but unfortunately this is very far from being the case. In too many instances persons are insolvent: i.e. they have the *Duty to pay* money, and have no money to pay it with: but the Creditor's *Right to demand* exists, no matter whether the Debtor can pay it or not.

If the Creditor's Right was the Right to a specific sum of money, it would follow that the Quantity of Credit in circulation could not exceed the Quantity of Money: but this is contrary to fact: because the Quantity of Credit in existence is not much less than fifty-fold the Quantity of Money.

**Second Ambiguity**—*The word Debt means both the Creditor's Right of action as well as the Debtor's Duty to pay.*

6. The word **Debt** would seem in strictness to mean the Debtor's **Duty to pay**, but it has long been used to mean the Creditor's **Right of action** as well: and thus it came to be used synonymously with **Credit**.

We are not aware that the word **Debitum** was ever used in classical Latin to mean the Creditor's Right of action: in juristic Latin it was used synonymously with **Obligation**; and would therefore include the Right as well as the Duty: but it had already acquired the special meaning of the *Right of action* in the 12th century.

Thus in the instructions issued by Richard I. in 1194 for a judicial visitation on financial matters, it is said :—

‘*Omnia Debora et vadia Judicorum inserviantur, terræ, domus, redditus, et possessiones.*’

‘*Item quilibet Judex jurabit super rotulum suum quod omnia Debora sua, et vadia, et redditus, et omnes res, et possessiones suas inserviansi faciat.*’

‘*Let all the Debora (Rights of action) and pledges of the Jews be scheduled, their lands, houses, rents, and possessions.*’

‘*Also let every Jew swear that he will make a true schedule of all his Debora (Rights of action), pledges, rents, and all his Property and possessions.*’

The word *Debora* was also used in the same sense in many mediæval charters.

Thus the words *Debora* and *Debora* had already acquired the meaning of the *Right of action* as well as the *Duty to pay*; and if these words were used in this sense in public documents, it is clear that that must have been their well-understood popular meaning.

And this is the meaning which the word *Debt* has long acquired in English Law : it means a *Right of action*, a *Claim*, or *Demand*.

Thus the Act 46 Geo. III. (1806), c. 125, s. 3, enacts that ‘*one Debt or Demand may be set off against another.*’

So Mr. Williams says— Within the class of *choses-in-action* was comprised a *Right* of growing importance, namely, that of suing for money due : which *Right* is all that is called a *Debt.*’

‘*We have seen that a Debt was anciently considered as a mere Right to bring an action against the Debtor.*’

‘*When a Debt or Demand is equitable only.*’

‘*Debts being formerly considered as mere Rights of action.*’

Thus in the Statute of Acton Burnell, 11 Edward I. (1283) commonly called the Statute of Merchants, it is said—

‘*Par ceo qe marchauntz qi avaunt ces heures unt preste lur aver a diverse genz, sunt cheuz en poverte, pur ceo qe il ni aveit pas si redde ley purvewe, par la quele il poeint lur Debora hastivement recoverir.*’

‘*Le Rei par luy par sun conseil ad ordine establi, qe marchaunt qi veut estre seur de sa Dette. . . .*’



‘E si le Meire ne troesse achatour face par renable pris liverer les moebles al Creanzur, desqe a la somme de la **Dette** en allowance de sa **Dette**.’ . . .

By which it appears that the word **Debt** had already acquired in legislation the meaning of the Creditor's *Right of action*, a meaning which it has ever since retained, both in Law and general usage.

So it is said in *Les Termes de la Ley*, first published in 1567.

‘Dett est un brief que gist lors ascun somme d'argent est due a un per reason d'accompt, bargain, contract, obligation, ou auter especialty a este pay a certain jour, le quel n'est pay donques il averent cest brief.’

So Ashe says—‘**Quel Det, Duty, Chose-in-action, ou Droit.**’

So, as may be seen in any daily paper, the executors of deceased persons advertise for any persons who have ‘**Debts, Claims, or Demands**’ against the estate to give in a statement of them.

Sometimes the word **Debt** is used in the same Act of Parliament in both senses of the Creditor's *Right of action* and the Debtor's *Duty to pay*.

Thus in the Supreme Court of Judicature, Act 36 & 37 Vict. (1873), c. 66, s. 25 § 6, it is said—‘Any absolute assignment by writing under the hand of the assignor of any **Debt**, or other legal *Chose-in-action* . . . to receive or claim such **Debt** or *Chose-in-action* . . . the legal Right to such **Debt** or *Chose-in-action*,’ where the word **Debt** means the Creditor's *Right of action*.

But in the same section, § 1, it is said—‘Whose estate may prove to be insufficient for the payment in full of his **Debts** and **Liabilities**.’ . . . ‘as to **Debts** and **Liabilities** proveable,’ where the word **Debts** means the Debtor's *Duty to pay*.

An administrator is appointed by the Court of the ‘goods, chattels, and **Credits**’ of the deceased.

Thus it is seen that the words **Credit** and **Debt** are used synonymously in Law.

It is exactly the same in common usage. A person makes his will bequeathing his **Debts**, i.e. his *Rights of action*.

So, in Scotch Law, Debts are included under the title Move-

able **Rights** : and in a Scotch marriage contract it is usual for the wife to transfer to her husband 'all goods, gear, **Debts**, sums of money, or other moveable estate.'

Accordingly, in the Digest of the Law of Bills of Exchange, Bank Notes, &c., which we prepared for the Law Digest Commissioners, we began with this definition—

'**Credit or Debt**, in *Legal, Commercial, and Economical language*, means a **Right of action against a Person for a sum of money**.'

Hence the student must carefully observe that the word **Debt** is used in English quite indiscriminately to mean both the Creditor's *Right of action* and the Debtor's *Duty to pay* : and it requires constant vigilance to perceive in which sense it is used.

The word **Duty** also formerly meant a **Right**. Thus the king's **Duties** meant the **Rights** which the king had to levy customs. This meaning appears in the extract from Ashe above cited : but it is seldom used in this sense now.

The word **Right** also had this double meaning in English : and it has so at the present day in Scotland.

Thus Lord Shelburne said in the House of Lords—'He would think that America had as good a **Right** to pay taxes as Britain,' i.e. it was as much their **Duty**.

So it is now quite common in Scotland to say—'I have no **Right** to do that,' i.e. it is not my **Duty** to do it.

The word *χρέος* in Greek has also this double sense : it usually means the Thing owed : or the Duty to pay it : but the Greek jurists used *χρέος* to mean the Right of action.

Thus Demosthenes says—'τὴν οὐσίαν ἅπασαν χρέα κατέλιπε.'  
'He left all his *Property* in *outstanding Debts*, i.e. *Rights of action*.'

So *χρέα* is used in the *Basilica* as synonymous with *nomen, créance*.

So in German the word *Schuld* properly means a Debt or Liability : accordingly *Schuldner* is properly synonymous with *Debitor*, and correlative to Creditor : but Austin says that *Schuld* has also the double meaning : and that in German Law *Schuldner* is often used to mean the Creditor.

In French, **Droit** and **Dette** are also used in the double

sense of the Right and the Duty: but in the one case it is termed *Dette active*: and in the other the *Dette passive*.

Thus Littre says—

'*Dettes actives*: celles dont on a le droit d'exiger le payement.'

'*Dettes passives*: celles qu'on est obligé de payer.'

'*Ordonance*: droit d'exiger l'accomplissement d'une obligation . . . on oppose les droits de créance aux droits réels': that is, Personal Rights, or *jura in personam* to Real Rights, or *jura in rem*.

On the Continent it is usual to term a person's Rights his *Actif*: and his Liabilities his *Passif*: the word *Droit* or *Dette* being understood.

Thus the student must carefully observe that all these words denoting a Contract or Obligation between two persons, such as *χρεός*, *Debitum*, *Debitale*, *Duty*, *Debt*, *Droit*, *Dette*, *Schuld*, are used indiscriminately with respect to both parties: and it requires constant vigilance to observe in which sense they are used. The explanation of this seeming confusion is that *χρεός* comes from *χρη*, it is fit, or ordained: *Debitum* means that which is due: *Right*, from *rectum*, means that which is ordered: and if one person has the Right to demand a sum of money from another, it is equally fit, ordained, due, and right that the one party should receive as that the other should pay: hence they are equally *χρεία*, *Debts*, *Duties*, and *Rights*.

**Third Ambiguity**—*On the Double Meaning of the words 'Lend' and 'Loan' and 'Borrow': or the Distinction between Mutuum and Commodatum.*

7. There is still another Ambiguity to clear up, which has been the cause of great confusion in the Theory of Credit in recent times.

All the older writers, who were chiefly men having a practical knowledge of business, seeing that the circulation of commodities is effected equally by Money and by Credit, said that **Credit is Capital**, without giving any nice definition either of **Capital**.

Since the time of J. B. Say, however, this doctrine has been the subject of much ridicule.

Say says in one passage, which has been repeated by a multitude of writers, that those who say that Credit is Capital maintain that the same thing can be in two places at once. We have already in the introduction fully explained Say's error. It arises from one of the worst fallacies in Logic—the Fallacy of Confusion—i.e. using the same word in different senses in different passages. We have shown that Say has said that Credit is Capital in numerous passages, but that in one other passage he has turned this doctrine into ridicule. The fact is that in one set of passages he sees that Credit is the *Right of action*: and in these he fully admits that it may be used as Capital. In the other passage he considers Credit to be the goods 'lent': and then he laughs at the idea that Credit is Capital: and asks how the same thing can be in two places at once: and be used by two persons at the same time?

Careless and indolent readers, catching at a stinging epigram, and failing to compare the doctrines in one part of his book with those in the other: and quite overlooking the fact that by Credit he means two totally different things in these two different passages, repeat his silly sarcasm.

We have also seen in the introduction that Mill has fallen into a similar, but not identical, contradiction. He also has fallen into the Fallacy of Confusion. For in a number of passages he expressly declares Credit to be Productive Capital: but in another he sneers at the notion that Credit is Capital, because he says it is only the **Transfer** of Capital.

But Credit is neither the actual goods 'lent,' nor is it the *Transfer* of them: it is the **Right of action** to demand the price of them, which is given in exchange for the actual goods instead of money: and which is created at the time of the transfer: which can be exchanged away any number of times, and effect any number of exchanges until it is paid off and extinguished.

8. The whole misconception is founded on an Ambiguity in the meaning of the words **Lend**, **Loan**, and **Borrow**, which are used to denote Two operations of totally distinct natures.

We have already observed that there are two kinds of Right—the **Right of Possession** only and the **Right of Property**.

And there are two distinct kinds of **Loan** : the one in which the Right of Possession only is given for a limited time, and at the end of the time the identical thing lent is restored : and the other in which the Absolute Right of Property in the thing lent is transferred to the borrower : and the 'lender' only acquires the Right to demand an equivalent amount of the thing 'lent,' but not the identical thing.

1. **The Commodatum.** There are some things which can be 'lent' and the 'borrower' can enjoy their use without acquiring the absolute Property in them : and after having so enjoyed their use, he can restore the identical things to their owner.

Thus, if a person lends his horse or a book to a friend, his friend can ride the horse and read the book without acquiring the Property in them : and after he has enjoyed their use he can restore them to their owner. In this case the 'lender' does not cede the Property in the thing 'lent' to the 'borrower ;' but only the Right of Possession of them for a certain time : and after he has enjoyed their use the 'borrower' restores the identical horse and the identical book to the 'lender.' In this case there is no Exchange, and no new creation of Property. In this case the relation of Creditor and Debtor is not created between the 'lender' and the 'borrower :' and there being no Sale, or Exchange, there is no Economic phenomenon.

Such a '**Loan**' is called in Roman Law a **Commodatum**.

2. **The Mutuum.** But there is another kind of '**Loan**,' in which the things 'lent' cannot be used or enjoyed without their Destruction, or Consumption, or Alienation. Thus if a person 'borrows' bread, or oil, or wine, or coals, &c., he cannot use them without consuming or destroying them : and they are borrowed for the very purpose of being destroyed.

Hence, from the very necessity of the case, the Property in such things must be transferred to the 'borrower :' and he undertakes to return to the 'lender' an equal amount of the thing lent in quantity or quality.

So a person who 'borrows' money cannot use it unless he exchanges it away for something else : consequently the person who 'borrows' money must acquire the absolute *Property* in it.

So if a person 'borrows' a Postage Stamp : the only way a

stamp can be used is to fix it to a letter, by which it is destroyed: hence the 'borrower' must acquire the Property in it.

In all cases, therefore, of the '**Loan**' of such things as wine, oil, bread, corn, coals, &c., and also of Money and postage stamps, the 'lender' cedes the Property in the thing 'lent' to the 'borrower.' And thus an Obligation is created between the 'lender' and the 'borrower,' by which the 'borrower' is bound to restore to the 'lender' an *equivalent* amount of the things 'lent:' but not the *identical* things 'lent.'

A '**Loan**' of this nature is called in Roman Law a **Mutuum**: which word the Roman Lawyers said came from *quod de meo tuum fit* (because from my Property it becomes yours). Modern scholars repudiate this etymology: they say that *mutuus* comes from *mutare*, to exchange: as *deciduus* from *decido*, and *dividuus* from *divido*. But, although the derivation is fanciful, as are so many others given by ancient writers, it exactly expresses the fact. In the Loan of the *Mutuum* there is always an exchange of Properties. In these cases the relation of Creditor and Debtor is always created between the parties: and the **Right** which the 'lender' has to demand back an equivalent amount of the thing 'lent' is the **Credit**: or, as Ortolan calls it, the Price of the thing lent. Such a transaction is always a Sale or an Exchange: and is an Economic phenomenon.

Hence those things only can be the subject of a **Mutuum** which consist in *pondere, numero, et mensurâ*: or which may be estimated generically in number, weight, and measure. Such things in Roman Law are properly termed *Quantitates*, because an equal Quantity of bread, oil, coals, wine, &c., of the same Quality is as good as another equal quantity of the same: or one sum of 10 sovereigns is equal to another sum of 10 sovereigns: or one Postage stamp is always equal to another of the same denomination.

But also the Digest says that they *mutuâ vice funguntur*; one quantity serves the same purpose as another quantity: from this expression the mediæval jurists called them *res fungibiles*, and in modern English Law they are termed **fungibles**.

In English Law the former kind of loan or *Commodatum* is said to be returnable *in specie*, because the identical thing is

restored : the latter kind of loan or *Mutuum* is said to be returnable *in genere*, because only similar things are restored.

**Sale of Goods.** The same relation as is created by the Loan of the *Mutuum* is created by the Sale of Goods on Credit. The seller of the goods cedes the absolute Property in them to the buyer : and what he receives in exchange for them is the Right to demand payment for them in money at a future time : this **Right** is a Property termed **Credit**, and is the **Price** of the goods.

Thus the Economic Quantity termed Credit, or Debt, is the Right which is created on a Loan of money, oil, corn, bread, money, or other fungibles to demand back an equivalent Quantity of the things lent : or the Right which is created on a Sale of goods on Credit, to demand their Price in money at a future time.

9. This distinction is so important that we may cite a passage from the paraphrase of Theophilus of the Institutes of Justinian, which we prefer to quote, because it is more full and distinct than the Institutes, and it superseded them as the authorised text-book of Law in the Law schools of the Empire.

‘ A Real Obligation is contracted by an act, or by the manual delivery of something counted out : and this includes the *Mutuum*.

‘ A thing is a **Mutuum** when the Property in it passes to the person who receives it ; but he is bound to restore to us not the identical thing delivered, but another of the same Quality and Quantity. I said so that the receiver becomes the proprietor of it, that I might exclude the **Commodatum** and the **Depositum** : for in these latter the receiver acquires no Property. But he must be bound to us to exclude the *Donation* : for he who receives one acquires the Property, but is not bound to us. I said that he must restore not the identical things lent, but others of similar Quality and Quantity, that I might not deprive him of the use of the *Mutuum*. For a person takes a *Mutuum* that he may use the things for his own purposes, and return *others* instead of them. For if he were obliged to give back the *same* things, it would be useless to borrow them.

‘ But all things are not taken as *Mutua* : but only those

which consist in weight, number and measure. In *weight*, as gold, silver, lead, iron, wax, pitch, tin : in *measure*, such as oil, wine, corn : in *number*, such as money. And, in short, whatever we deliver with this intent, in number, measure, and weight, so as to bind the receiver to return to us, not the same things, but others of the same nature and quantity. Whence also it is called *Mutuum* ; because it is transferred by me to you with the intent that it should become your Property (*quod de meo tuum fit*).

‘ But the Real Obligation includes *Commodatum* : as if anyone were to ask me to lend him a book, and I lend it . . . . . But the *Commodatum* differs widely from the *Mutuum*. For the *Mutuum* transfers the Property, but the *Commodatum* does not transfer it ; and therefore the borrower (*Commodatarius*) is bound to restore the very thing lent.’

So it is said in the Digest—‘ But it is called giving a *Mutuum*, because from being my Property it becomes yours (*quod de meo tuum fit*) : and therefore if it does not become your Property no Obligation is created.’

But, on the contrary, with respect to the *Commodatum*—‘ We retain the Property and Possession of the thing lent (*rei commodatæ*)’ . . . . ‘ No one by lending (*commodando*) a thing gives the Property in it to him who borrows it.’

Thus the whole misconception has arisen from the English words ‘ **Lend**,’ ‘ **Loan**,’ and ‘ **Borrow** ’ being used to denote two operations of essentially distinct natures. The French language is equally faulty : the words *emprunt* and *emprunter* are equally applied to both kinds of Loan. But the distinction is clearly pointed out in Roman Law : and the Latin language has a distinct word for each operation.

All commercial Loans are *Mutua*, and not *Commodata* : every Loan of money is in reality a Sale or an Exchange, in which a New Property is created, which is called a Credit or a Debt : and when the Money is returned or the loan repaid, it is another exchange by which the New Property is extinguished.

No one who had the simplest knowledge of the elementary principles of Roman Law, or of Mercantile Law, would ever have committed the mistake of confounding the distinction between the Loan of an ordinary chattel and the Loan of Money.



*On an Erroneous Idea as to the Nature of Credit*

**10.** The Three Ambiguities in the Theory of Credit, which we have just explained, show how abstruse and complicated the subject is. There are other forms of error with respect to the subject which now require the student's attention.

It has been asserted that Credit adds nothing to the resources of the world, because it is neutralised by something else.

Any person practically conversant with commerce, and seeing that the enormously greater portion of commercial operations are effected by means of Credit, would think it strange doctrine that Credit adds nothing to the resources of a nation, or of an individual: because Credit is exactly the Purchasing Power which an individual or a nation has *over and above Money*.

Some writers, however, have been misled by a very manifest error.

Thus Henry Thornton, an able man, a banker, and one of the authors of the Bullion Report, says—'Paper constitutes, it is true, an article on the Credit side of the books of some men, but it forms an exactly equal item on the Debit side of the books of others. It constitutes, on the whole, neither a Debit nor a Credit.'

So another eminent banker, M. Cernuschi, says—'The balance-sheet of every individual contains three accounts: existing goods, Credits, and Debts. But if we collected into one all the balance-sheets of every one in the world, the Debts and the Credits mutually neutralise each other, and there remains but a single account: existing goods.

'The totality of goods, therefore, forms the general inventory. There is the first matter of exchange. The Debts and Credits are subsidiary matters. Debts and Credits are reciprocally transmitted as goods are transmitted: but, however great or however small they may be, and through whatever hands they may pass; Credits for some, Debts for others, they add nothing to and take nothing away from the general inventory.'

The argument of Thornton and Cernuschi is simply this. Suppose A to have £100 in money, and also a three months' bill of £50 on B. Suppose B. to have £100 in money, but at the same time to have accepted a bill of £50 at three months to

A. Then A's property would be stated thus, £100 + £50 : B's property would be stated thus, £100 - £50 : now the argument of these writers is this—that the + £50 and the - £50 balance and neutralise each other, and the result is 0 : which, according to them, is the same thing as saying that these Quantities do not exist at all.

This view might perhaps seem at first sight somewhat specious, but a very little reflection will show that it is erroneous.

Suppose that a landlord lets a house to a tenant. In exchange for the use of the house the landlord receives the Right to demand a certain sum three months after date. The transaction is an exchange. The Right to demand the money is an actually existing Right in the landlord : it is his Property, which he can sell or transfer to any one else. It is therefore +, *plus*, to him, and an *addition* to his other Property. The tenant is bound to pay the Rent : and therefore it is —, *minus*, to him : but that does not cause any diminution of his present Property. In fact, he is not in Debt at all until he has had the use of the house for three months, and the day of payment has come.

Similarly, if a merchant buys goods, and gives a Bill at three months in payment of them, the transaction is an exchange. The right to demand is *plus* to the seller of the goods : it is his Property, which he may sell and dispose of like money. But the goods remain the entire property of the merchant : he may sell and dispose of them as he pleases : and the money he obtains in exchange for them remains his property, which he can dispose of as he pleases. He is bound to pay his bill when it becomes due : and this **Duty** is —, *minus*, to him : but it is no subtraction from his present Property. And he is not in Debt at all until the Bill becomes due.

We have already, in paragraph 4, pointed out, and warned the student against, this error : in fact, though the Right is created at the time of the sale of the goods, there is no Duty to pay until the bill becomes due : consequently, so far as regards Economics, there is no neutralising of one quantity by another.

In the next place, even if there were two Quantities in existence at the same time, which neutralised each other's effects,

it would be very erroneous to say that that is the same thing as saying that the two Quantities do not exist.

There may be two equal and opposite mechanical forces which neutralise each other, and the result is 0 : but that is very different from saying that the two forces do not exist.

Suppose the Government on a division has 345 supporters and 300 opponents : 300 members on each side neutralise each other : and the result is 45 : but that is a very different thing from saying that the 600 members do not exist.

Hence we see that in this case the  $-\text{£}50$  does not mean that it is to be *subtracted* from his *present* property.

This, then, is the paradox. The Right to receive the future Rent is the absolute Property of the landlord : and therefore in this case + means absolute property, and is an addition to his other property.

But, though the tenant is bound to pay the Rent, and it is therefore - to him, it is not to be *subtracted* from his present Property : and is no diminution of it.

What then does it mean ?

Before we can give a full and complete answer to this question, we shall have to notice another very popular error in the meaning of the Negative Sign as applied to Debts.

But the consideration we have presented will be enough to show the error of Thornton and Cernuschi, who allege that Credit adds nothing to the resources of the nation : *because it is Purchasing Power over and above Money* : and, in fact, in this great commercial country the Purchasing Power of Mercantile Character, or Credit, is many times greater than Money.

*On the Erroneous Ideas of some Mathematicians and others on the Nature of Credit or Debts*

11. We now have to commence a new and most interesting branch of the Theory of Credit.

For a century and a half since the days of Maclaurin, mathematicians have given **Debts** as an example of **Negative Quantities**. But they have not succeeded in discerning the true interpretation of the term **Negative** as applied to **Debts**.

Though Debts are very frequently given as an example of

Negative Quantities by Mathematicians, we are only aware of two who have attempted to give an explanation of the term.

Euler says—'The manner in which we calculate a person's property is an apt illustration of what has just been said. We denote what a man really possesses by positive numbers, using or understanding the sign +: whereas his Debts are represented by Negative Numbers, or by using the sign -. Thus when it is said of any one that he has 100 crowns, but owes 50, this means that his real possessions amount to  $100 - 50$ , that is to say, 50 crowns.

'As Negative numbers may be considered as Debts, because Positive numbers represent real possessions, we may say that Negative numbers are less than nothing. Thus when a man has nothing in the world and owes 50 crowns, it is certain that he has 50 crowns less than nothing: for if any one were to make him a present of 50 crowns to pay his debts, he would still be only at the point 0, though really richer than before.'

It is quite easy to show that the first paragraph is not a suitable mode of stating the question in Economics. For suppose that a person has 100 crowns and is bound to pay 50 crowns one year hence: then it is true that his Property might be stated as  $100 - 50$ : but it would be quite inaccurate to say that his Property is only 50 crowns. Because he has 100 crowns, which are his absolute Property, which he may trade with and dispose of in any way he pleases in the meantime: and he is only bound to have 50 crowns at the end of the year to discharge his Debt.

But the owner of the Debt may put it into circulation: and it may be bought and sold, or exchanged any number of times, and produce all the effects of money until it is paid off. So there may be the 100 crowns *and* the Debt, or the Right to demand the 50 crowns circulating simultaneously in commerce.

Nevertheless the Debtor's property would be correctly stated as  $100 - 50$  crowns. Hence it is quite clear that the 50 crowns are not to be subtracted from his *present* property. Now, by the *Law of Continuity* this same principle must be true if we diminish the period of payment gradually from one year by small gradations of a day at a time, till we reduce it to 0, or make the debt payable on demand. The fact is, the expression

is to be read in this way : he possesses 100 crowns, but *coupled with* the **Duty to pay** 50 crowns at some given time.

So in the second paragraph, when the Debtor possesses 0 crowns and owes 50 crowns, he is said to have 50 crowns less than nothing. This clearly means that he has the **Duty to pay** 50 crowns, and has nothing to pay them with. Now suppose that, being in such a position, as Euler says, some one makes him a present of 50 crowns to pay his Debt with : then he is clearly 50 crowns richer than he was before : and yet his Property is now only = 0 : this is an example that  $+ \times +$  gives +.

Thus Euler is right so far as he goes : but he has manifestly stated only one half of the case. Because there is another combination of Algebraical symbols which gives +, namely  $- \times -$  : and there is another mode in commerce of arriving at the same practical result.

Suppose that his Creditor **Releases** him from his **Debt** : then his Property would also = 0 : and, as in the former case, he would be 50 crowns richer than before. Now if crowns are +, and to Give is also + : then a Debt is -, and to **Release** or **Take away** is also - : consequently to **Give Money** is represented by  $+ \times +$  : and to **Release a Debt** will be represented by  $- \times -$  : and the position of the Debtor will be exactly the same after each operation.

Hence to Release a Debtor from the Duty to pay Money is exactly equivalent to making him a Gift of Money. This shows that the Release (-) of a Debt (-) is exactly equivalent to the Gift (+) of Money (+) : or that in Commercial Algebra  $- \times - = + \times +$ , as in Common Algebra : an example of the principle of the *Permanence of Equivalent Forms* : a principle of the most momentous consequence in modern commerce.

**12.** Peacock, Dean of Ely, to whom Algebraical Science is so much indebted, has equally failed to give a correct interpretation to the term Negative, as applied to Debts.

He says—'A merchant possesses  $a$  pounds and owes  $b$  pounds : his substance is therefore  $a - b$  : when  $a$  is greater than  $b$ .

' But since  $a$  and  $b$  may possess every relation of value, we

may replace  $b$  by  $a-c$  or  $a+c$ : according as  $a$  is greater or less than  $b$ : in the first case we get

$$a - b = a - (a - c) = c.$$

and in the second—

$$a - b = a - (a + c) = -c.$$

‘If  $c$  therefore expresses his substance in property when solvent,  $-c$  will express the amount of his Debts when *insolvent*: and if from the use of  $+$  and  $-$  as signs of affection, or quality, in this case, we pass to their use as signs of operation, then, inasmuch as

$$a + (-c) = a - c, \text{ and } a - (-c) = a + c,$$

it will follow that the addition of a Debt  $-c$  is equivalent to the subtraction of property,  $c$ , of an equal amount, and the subtraction of a Debt  $(-c)$  is equivalent to the *addition* of property,  $c$ , of an equal amount: and it consequently appears that the subtraction of a Debt, in the language of symbolical Algebra, is *not its Obliteration or Removal, but the change of its affection or character from Money or Property owed to Money or Property possessed.*’

Here we observe that Peacock arrives at the conclusion that the subtraction of a Debt is equivalent to the addition of Property: exactly as we have seen above: but his method of arriving at the result is erroneous, because he forms the same idea of a Debt that Euler does, namely, it is Money in the possession of the Debtor owed and pledged to the Creditor, and therefore affected with the Negative Sign: and that the Release of a Debt is the change of the sign of affection of Money owed into Money possessed.

Now this is exactly the same error as Euler has fallen into; and is exactly the error which we have already shown is so carefully provided against in the Digest, and by Pothier, Austin, and many other Jurists.

If these distinguished mathematicians had reflected, they would have seen that their interpretation could not be correct. Because the signs  $+$  and  $-$  refer always to similar Quantities, but of opposite Qualities. Now the Creditor's Right is  $+$ , and the inverse of a simple Right cannot be a simple quantity of

Money: it must be something which is the Inverse of a **Right**: and the Inverse of a **Right** is a **Duty**. Besides, releasing an insolvent Debtor from a Debt does not put him in possession of any actual money: it is only equivalent to it: but not identical with it.

The fact is that the Debt is not Money in the possession of the Debtor, owed or pledged to the Creditor: but the abstract **Duty to pay** money: and the Negative Sign denotes the **Cancelling** of the **Duty**, or **Releasing** the Debtor from the **Duty to pay**.

Hence the result is not produced in the way in which Peacock says it is: but exactly in the way in which he says it is not.

*On the Application of the Theory of Algebraical Signs to Economics*

**13.** The perplexities of the Theory of Credit, which have baffled all the Economists in the world to explain, can only be unravelled by the great modern doctrine of the **Separation of the Signs of Affection or Distinction and Operation**.

As the introduction of this great doctrine into Economics is perfectly novel, we shall treat of it somewhat fully, especially as there may be students of Economics who are not very familiar with it in other sciences.

It is a remarkable example of the almost universal truth that practice has always preceded theory, that even the Practice of science long preceded the Theory of science. Thus, from the days of Diophantus it was perfectly well understood as an empirical rule in Algebra that  $- \times -$  gives  $+$ .

Sixteen hundred years ago Diophantus said—

‘*λείψις ἐπὶ λείψιν πολλαπλασιασθεῖσα ποιεῖ ὑπαρξιν.*’

‘*Defect multiplied into Defect gives Existence.*’

When the great pioneers of Algebra in modern times, Harriott, Fermat, Vieta, Des Cartes, Cardan, Tartaglia, translated their reasonings into general symbols, they found that they had created a machine whose working they were unable fully to comprehend. They found among other things that many problems produced **Negative** answers. Unable at first to compre-

hend the meaning of **Negative** answers, they believed that they had no real meaning, and they called Positive Roots true (*veræ radices*), and Negative Roots fictitious (*fictæ radices*). In the progress of Natural Philosophy, the Negative Sign was used to a vast number of Quantities : but no general Theory of Signs was devised : and the progress of mathematics was much impeded by the want of the generalisation. The rule that  $- \times -$  gives  $+$  was universally adopted in practice, because no other produced right results. But Algebraists were unable to explain the reason of it : it was wholly unknown to Newton : and when he tried to explain it, the great Euler babbled like a child.

Even so late as 1813 a distinguished mathematician at Cambridge denied the existence and ridiculed the idea of there being any such thing as Negative Quantities.

Many centuries ago, at least about 1100 A.D., the Hindoo Algebraists had made considerable advances in explaining the Theory of Signs : but nothing was done in Europe till nearly the close of the last century. Since then a new spirit of philosophy has been breathed into the old science, and a number of distinguished men, Arbogast, Argand, Buée, Armand, Carnot, Warren, Peacock, De Morgan, and others, have completely established the Theory of Signs : and their labours have resulted in the doctrine of the *Separation of the Signs of Affec-tion or Distinction and Operation*.

Writers who are not versed in Natural Philosophy have no conception of the signs  $+$  and  $-$  meaning anything but *addition* and *subtraction* : whereas any one who has any knowledge of Natural Philosophy knows perfectly well that the signs  $+$  and  $-$  have an immense variety of meanings, according to the particular circumstances under which they occur : or the body of facts to which they relate : and it is wholly impossible to determine their meaning until we know the particular circumstances out of which they arise.

We must now explain the general use of these signs in Natural Philosophy, and show how they may be applied by analogy to Economics.



*All Sciences deal with Quantities and Operations*

**14.** All Sciences deal with certain Quantities which are affected by some single general Quality : and all Quantities which are affected by that single general Quality are elements in that science, no matter what other Qualities may be found united with it : and however diverse the natures of the Quantities may otherwise be.

But these Quantities in the various sciences may be endowed with **Opposite** Qualities : and when they are so, it is universally the custom in Natural Philosophy to distinguish them by the Signs + and -.

These Signs so used in Natural Philosophy are usually called **Signs of Affection or Position** ; or we may with equal propriety call them **Signs of Distinction**.

**15.** But also **Opposite Operations** may be performed upon these Opposite Quantities : and these Operations of an **Inverse** or **Opposite Nature** are also distinguished by the same Signs + and -. And any Operations whatever of an Opposite or Inverse Nature, no matter what that **Contrariety**, or **Inverseness**, may consist in, are denoted by these Signs.

They are then termed **Signs of Operation**.

**16.** And the Combination of these Opposite Signs of Opposite Qualities with the Signs of Opposite Operations performed upon them : that is, the Combination of the Signs of Distinction with the Signs of Operation, give rise to the well-known Algebraical Rules—

$$\begin{array}{r}
 + \times + \text{ gives } + \\
 + \times - \text{ „ } - \\
 - \times - \text{ „ } + \\
 - \times + \text{ „ } -
 \end{array}$$

These Laws, which are universally applicable in Natural Philosophy, are equally applicable to Economics : and among other things are alone capable of giving the solution of the Theory of Credit, which has hitherto been the opprobrium of the science.

There are Economic Quantities of **Inverse**, or **Opposite**,

**Properties**, or **Qualities**, and therefore following the strictest analogy with Physical Science, we shall distinguish them by opposite signs : and also **Opposite Operations** may be performed on these Opposite Quantities, bringing into play the well-known Algebraical Rules which will lead to consequences that may surprise some students.

*Examples of Algebraical Signs applied to Quantities*

17. We will now give a few examples of Signs applied to **Quantities** to furnish analogies to guide us as to the solution of the perplexities of Economics.

Thus in Algebraical Geometry in which it is necessary to fix the position of lines, if a fixed point be taken, then lines drawn in Opposite directions from it, either to the Right and Left : or Upward and Downward : are distinguished by the signs + and - .

So if a line revolving in one direction be denoted by + , then when it revolves in the Opposite direction it is denoted by - .

If the mechanical forces act in Opposite directions, they are distinguished by Opposite Signs.

In modern Kinematics an Accelerating Force is one which causes a body to change the Rate of its Velocity : if it Increases the Rate of velocity, it is called *Positive* : if it Diminishes the Rate of velocity, it is *Negative*.

In errors of observing phenomena, if the error is greater than the reality, it is called **Positive** ; if it is less than the reality, it is called **Negative**.

The engines of a steamer going ahead may be distinguished by + : and when going astern by - .

So if 1 be multiplied by power of  $a$ , they are termed *Positive* powers of  $a$  : if 1 be divided by powers of  $a$ , they are termed *Negative* powers of  $a$ .

A curious instance of this principle may be cited from steam navigation. Owing to the resistance of the water, the paddles or the screw of a steamer do not in general propel the vessel through the water so fast as they would do if there was no resistance. This loss of speed is called the **Slip**. But in the case of the screw, by giving the stern of the vessel a particular shape

the paradoxical result may be attained, that she may actually be made to go through the water *faster* than she would do if the screw were working on a solid. Thus in this case the difference between theoretical and the actual speed is a **Gain** instead of a **Loss** : and this Gain is called the **Negative Slip**.

Now this idea of Opposition is applied to a continuous line : or to **Motion** in a continuous line. If any point be taken as 0, then the part of the line on one side may be denoted by +, and the part on the other by -.

Thus in a thermometer some fixed point is taken as 0, and degrees above that point are distinguished as +, and those below as -.

Now if the mercury passes from a certain number of degrees on one side of 0 to any number of degrees on the Opposite side of 0, it is quite clear that, in order to find the total number of degrees passed over, the degrees on *both* sides of 0 must be added together. That is, the Negative degrees must be *added* to the Positive degrees, and not subtracted from them.

Now, in Natural Philosophy **Time** is considered as **Motion** in a continuous line. If, therefore, any point in Time be fixed on and denoted by 0, then Time on Opposite sides of this point will be denoted by Opposite Signs. If Time *before* this era be denoted by +, then Time *after* this era will be denoted by - ; and the successive intervals of Time, whether years, months, weeks, or days, will be denoted thus :—

. . . . +6 + 5, + 4, + 3, + 2, + 1, 0, - 1, - 2, - 3, - 4, - 5, - 6, . . . .

If the Birth of Christ be taken as the given era or 0, then years *before* Christ will be Positive, and years *after* Christ will be **Negative**. To find the number of years from the foundation of Rome to the present time, we must add + 753 and - 1881 together : or 2634 years altogether.

**18.** As an example of the application of the Positive and Negative Signs to Time, we may give an example which will be very useful in Economics.

Suppose this question were asked—

*A father's age is 40, and his son's is 15 : when was the father twice the age of his son?*

Let  $x$  be the number of years *before* the present time when the father *was* twice the age of his son—

$$\begin{aligned} \text{Then } 40 - x &= 2(15 - x) \\ \text{or } x &= -10. \end{aligned}$$

What does this Negative answer mean?

It means that the father never *was* twice the age of his son in Time *past*, which is taken as *Positive* in the question: the epoch or event of his being twice the age of his son is to be found in Time opposite to the Past: that is, in Time *future*. He was not twice the age of his son 10 years *ago*; but he will be twice as old as his son 10 years *hence*: as is very clear: because in 10 years the father will be 50 and the son 25.

Hence if any event which has happened in Time past is Positive, then the same event, if it is to happen in Time future, will be **Negative**.

Thus if a Product or Profit which *has been* realised in Time past be distinguished as **Positive**: a product or Profit which *is to be* produced or realised in Time future is **Negative**.

Hence if any Economic Quantity or Capital of any form whatever produces Profits in a continuous series: the Profits which *have been* produced in Time *past* are Positive: and the Profits which *are to be* produced in Time *future* are **Negative**.

And consequently the **Right** to the Profits already realised in the past may be distinguished by the sign + and termed **Positive**: and the **Right** to the Profits which *are to be* realised in Time *future* may be distinguished by the sign -, and termed **Negative**.

And the total Value of the Economic Quantity or the Capital comprehends **both** the Right to the Profits already realised in the *past*, as well as the Right to the Profits to be realised in the *future*, or both the Positive Right and the Negative Right.

19. Thus, in general, every conceivable Opposition, Inverseness, or Contrariety, of Quality of similar Quantities may be distinguished by the terms Positive and Negative. Thus Up and Down: Right and Left: Before and Behind: Before and After: the Past and the Future: Above and Below: Yes and No: Supporters and Opponents: Face to Face, or Back

to Back : Erect and Inverse : Convex and Concave : Sympathy and Antipathy : **Rights** and **Duties** : **Active** and **Passive** : are all Opposite, Inverse, or Contrary to each other, and may be respectively distinguished by the signs + and -.

So Huxley observes that Memory and Expectation are Inverse to each other : Anticipation is inverted Recollection : Silver shone expresses a Memory : Silver will shine expresses an Expectation. Hence, if Memory be denoted by +, Expectation will be denoted by -.

So we may desire to possess a thing ; and we may desire to get rid of a thing as a nuisance : in either case we may be willing to pay to fulfil our desire : and the desire to possess the thing is a **Positive Value** : and the Desire to get rid of the thing is a **Negative Value**.

And Negative Values play a most important part in Economics : several of the most important professions derive their incomes solely from our desires to ward off dangers and evils—such as Physicians, Surgeons, Soldiers, War seamen, and to a great extent Lawyers.

#### *Examples of the Algebraical Signs applied to Operations*

20. And as the Opposite Signs are applied to Quantities which are affected by Opposite Qualities of every sort and description : so also the same Signs are applied to any **Operations** whatever of Opposite, Inverse, or Contrary natures, no matter what the Opposition, Inverseness, or Contrariety may consist in.

Thus to Add and to Subtract : to Pay and to Receive : to go Forwards and to go Backwards : to Do and to Undo : to Build Up and to Pull Down, &c.

Now to **Create**, or to call into existence out of the **Absolute Nothing**, and to **Cancel**, **Annihilate**, or to **Decrease** into the **Absolute Nothing** are Operations of Opposite, Inverse, or Contrary Natures : and consequently, if to **Create** be denoted by the **Positive Sign** +, to **Cancel**, **Annihilate**, or **Decrease** will be denoted by the **Negative Sign** -.

*The terms **Positive** and **Negative** are also commonly used by Jurists to denote **Opposition***

**21.** The terms Positive and Negative are also very commonly used by Jurists as well as by Mathematicians to denote Opposition.

Thus Ortolan uses the terms Positive Rights and Negative Rights to denote Rights to **Acts** and Rights to **Forbearances**.

Jurists class Servitudes as Positive and Negative: or those which consist in the Right to *Use* the given subject in a given manner: and those which consist in the Right to a *Forbearance* on the part of the owner from using the subject in a given manner.

Ortolan calls the Omission or Refusal on the part of a man to act or do something a Negative Fact.

So Austin speaks of Positive and Negative Wrongs: or Wrongs of *commission* and *omission*.

So a **Negative** Virtue is the Absence of a vice. Professor Stubbs says of Edward II.—‘His faults are quite as much **Negative** as **Positive**: his character is not so much vicious as devoid of virtue.’

In Parliamentary language a bill which is thrown out is said to pass in the Negative.

In its relation to a Right a Duty is Negative: but Duties themselves are termed Positive and Negative: as there is the Duty to do something and the Duty to abstain from doing something. Thus we have, as it were, a Negative Sign within a Negative Sign: which we shall hereafter find to be also the case in Economics.

So Active and Passive are distinguished as Positive and Negative: and Rights and Duties are frequently termed Active Rights and Passive Rights.

Arguing, then, from these analogies, we are quite at liberty in Economics to apply the terms Positive and Negative to any **Quantities** and **Operations** whatever of an **Opposite, Inverse, or Contrary** nature.

Thus, if the *Right to demand* £100 be denoted by (+£100), then the *Duty to pay* £100 will be denoted by (-£100), without any reference to any specific £100 in cash.

*The Theory of the Value of Land*

**22.** Having now cleared away various misconceptions which have obscured the true understanding of the Theory of Credit and explained the general principles of the use of the Algebraical Signs in the various sciences, we are now in a condition to perceive their application in Economics.

We have already, in Chapter I., explained the Theory of the Value of Land : and shown that the total Value of Land consists in the Right to the past products of the soil, together with the Right to a series of future profits or products for ever. But though each of these future products or profits will only come into existence at definite intervals of time, they have each a **Present Value** : and the Value of the Land is the sum of this series of Present Values of the future products for ever.

The Right to receive any number of these future products is an estate in land : and as the entirety of the Rights may belong to different persons, they give rise to the whole legal doctrines of estates in remainder, in fee, in tail, in reversion, &c., with all their complications.

Now, if we assume the products already realised to be Positive, we have seen that by the general principles of the Theory of Signs the products to be produced in Time future will be Negative. And consequently the Right to the products already realised is Positive, and the Right to the products or Profits to be produced in future is **Negative** : and may be called the **Credit** of the Land : because the owner has merely the abstract Right to the products when they are produced. And if any one buys this abstract Right, he merely does so on the **Belief** or **Expectation** that the land will produce them.

*A Person exercising any Profitable Business is an Economic Quantity, analogous to Land*

**23.** A merchant in trade exercising a profitable business is an Economic Quantity analogous to Land. He may have accumulated Money, the fruits of his past industry : but besides his accumulated Money he possesses his Skill, Energy, and Abilities, his **Personal Capital** or **Mercantile Character**, his **Capacity to earn profits in the future**, as he has already done in

the past: exactly as the Land has not only produced profits in the past, but has also the Capacity to produce profits in the future.

The merchant has also the Right to the profits of his future industry. And it is quite evident that if his Right to the profits he has already earned is Positive: his Right to the profits he *will earn in future* is **Negative**.

Thus the Value of a merchant as an Economic Quantity, like the Value of Land, consists in the Property in the realised products of the past, together with the Property in the products of his future industry: which of course are **Inverse** and **Opposite** to each other.

And there are two ways in which a merchant may trade. He may buy goods with Money, the fruits of his **past** industry: or he may buy goods by giving in exchange for them the **Right to demand** money at a future time, which is intended to be earned by his future industry. **Personal** or **Mercantile Character** used in this way is, as we have seen, in popular language termed **Credit**: and as **Anything** which has **Purchasing Power** is defined to be **Wealth**: it evidently follows that **Money** and **Credit** are equally **Wealth**.

When a merchant buys goods with his *Promise to pay* in future, it is a mere abstract Right, quite separate from any specific Money: it is therefore **Credit**, because the person who buys it merely buys an abstract Right, in the Belief and Confidence that it will be paid in money.

Hence **Mercantile Skill**, **Capacity**, or **Character** may be called **Personal Credit**.

But, as we have already seen that **Capital** is any **Wealth**, or Economic Quantity, used for the purpose of profit, it follows that **Money** and **Credit** may be equally used as **Capital**.

*If Money is Positive Capital, Credit is Negative Capital*

**24.** A merchant's Purchasing Power is his Money, his Right to demand money, and his Credit.

If he buys goods with Money, and sells them with a Profit, he first replaces the Money he expended, and the surplus is his Profit.

When he buys goods with his Credit, he incurs a Debt:



when he sells the goods he first discharges his Debt he has incurred, and the surplus is his Profit.

In either case his Profit consists in the excess of his Property at the end of the operation above what it was at the beginning.

If he buys the goods with Money, he makes Capital of the **realised** Profits of the **past**: if he buys them with Credit, he makes Capital of the **expected** Profits of the **future**.

In each case he makes a Profit: hence by the definition both **Money** and **Credit** are **Capital**: but as they are **Inverse** and **Opposite** to each other, if **Money** is **Positive Capital**, **Credit** is **Negative Capital**.

#### *On Debts as Negative Quantities*

**25.** We have seen that mathematicians call Debts Negative Quantities: but they are mistaken in the application of the term '**Negative**.' After the considerations we have presented, the real meaning of the term '**Negative**' is perfectly clear and simple.

An Obligation consists of two parts—

1. The Creditor's **Right to demand**.
2. The Debtor's **Duty to pay**.

Those two Quantities are Opposite and Inverse to each other: the first is **Active** or **Positive**, and the second is **Passive** or **Negative**.

Hence the Creditor's **Right of action** is the **Positive** Quantity, and the Debtor's **Duty to pay** is the **Negative** Quantity.

Hence, if a person has a balance of £500 at his banker's, and is bound to pay £50 at some given time: and therefore his Property may be represented by £500 - £50, it is not to be read as if he had only £450 at his banker's: but it is to be read in this way—he possesses £500, but *coupled with* the **Duty to pay** £50 at some given time.

Hence, in Economics, the symbol (+ £100) always means actual Money, or the Right to demand money, such as Bills and Notes: and the symbol (-£100) always means the **Duty to pay** money.

And an Obligation consists of two Opposite Quantities, the

Creditor's *Right of action* (+), and the Debtor's *Duty to pay* (-), and it may be conveniently denoted by this symbol  $\left\{ \begin{array}{l} + \text{£}100 \\ - \text{£}100 \end{array} \right\}$ .

In this case the **Debt** means the **Duty to pay**.

We now clearly perceive the meaning of saying that **Money** is a Positive Quantity, and **Debt** is a Negative Quantity. It means that **Money** is a **Right**, but **Debt** is a **Duty**. And this exactly corresponds with the common Algebraical doctrine that Quantities passing through 0 change their sign. Because, when a man has spent all his **Money**, his Property being then 0, and then runs into **Debt**, he has exhausted his **Right** (+), and incurred a **Duty** (-).

And as the Opposite, or Inverse, Quantities in an Obligation are created together, can only exist together, and vanish together, they are exactly analogous to **Polar Forces**.

#### On Debts as Goods and Chattels

26. We have shown that in Roman Law all Rights, and Credits or Debts, among them, are included under the titles *Pecunia, Res, Bona, Merx*: in Greek Law under the terms *χρήματα, ἀγαθὰ, πράγματα, οἶκος, ὑπάρχων, οὐσία, ἀφορμή*: and also in English Law all Property, including Debts or *Choses-in-action*, except only freehold property, is included under the title **Goods** and **Chattels**. As, however, we shall have to exhibit the mechanism of the great commerce in Debts, it will be as well to familiarise the student somewhat more with the idea that **Debts** are **Goods** and **Chattels**.

Thus Sheppard says, under **Chattels**,—

‘All kinds of emblements, sown and growing, grass cut, all money, plate, gold, silver, jewels, utensils, household stuff, **Debts**, wood cut, wares in a shop, tools and instruments for work, wares, merchandise, carts, ploughs, coaches, saddles, and the like: all kinds of cattle, as horses, oxen, kine, bullocks, goats, sheep, pigs: and all tame fowls and birds, as swans, turkeys, geese, capons, hens, ducks, poultry, and the like, are to be accounted as **Chattels**.

‘All Obligations, Bills, Statutes, Recognizances, and Judgments shall be as a Chattel in the Executor.’

‘All **Right of action** to any personal action is a **Chattel**.’

So it was resolved by Popham, Chief Justice of England, and many other Justices, that '**Personal actions** are as well included within this word **Goods** in an Act of Parliament as Goods in possession.'

So in one of the leading cases of English Law, Lord Chancellor Hardwicke said—'And **Debts** come within the words and meaning of the act, and would pass in a will thereby . . . *Choses-in-action* are properly within the description **Goods and Chattels**.'

So Burnet, J., said—'A **Bond-debt** is certainly a **Chattel**.'

So Parker, L. C. B., said—'But **Goods and Chattels** include **Debts** . . . *Things-in-action* are considered as **Goods and Chattels**.'

Lee, C. J., said—'The inquiry on the second point is whether *Choses-in-action* are not included under **Goods and Chattels**, and I agree . . . this is now out of question : *Choses-in-action* will be included therein. Fulwood's case, 4 Co. 65, proves that a *Chose-in-action* (as an Obligation) is a **Chattel**. So Staunford Prerog. 65, c. 16, says that **Chattels** comprehend **Rights of action to goods**.'

In this case the **Debt** means the Creditor's **Right of action**.

We need not give any more quotations : in fact, those we have given are only for the benefit of lay readers. We have dwelt on this point at greater length than we otherwise should, because this is the chief difficulty which lay students feel on the subject. Every one who has studied the most elementary principles of Law knows perfectly well that a mere abstract Right or *Chose-in-action* is a **Personal Chattel** like any other species of Property : but lay readers find a little difficulty at first in understanding that a mere abstract Right of action is saleable goods, or merchandise, just like so much iron, or coal, gold, silver, lead, corn, or anything else.

*On the Distinction between a Debt and a Bailment : or the Distinction between a Mutuum and a Depositum*

**27.** It has now been clearly shown that Credit is the Name of a species of Incorporeal Property of colossal magnitude in this country, which is bought and sold like any other species of Property : and chiefly by means of Paper Documents.

We have still to point out one more common misconception to complete the subject.

There are two classes of Paper Documents which are in general use in commerce, and which have some superficial resemblances—that is, they both convey certain Rights, and are both transferable, and are therefore considered by many persons to be of the same nature. But yet they are fundamentally distinct in their nature : and in this radical distinction is contained the basis of the Theory of Credit. And it has been the confusion between these two distinct classes of Paper Documents which has been at the root of most of the false theories of Credit and Currency which have produced such terrible catastrophes in the world.

**28.** These two species of Paper Documents are :—

1. Bank Notes, Bills of Exchange, Cheques, and all other Securities for money : all these are **Instruments of Credit**.

2. Bills of Lading, Dock Warrants, and all other Titles to specific goods : which are termed in Law, **Documents of Title**, to which class also belong Mortgage Deeds of Land.

In order to understand clearly the fundamental distinction between these classes of Paper Documents, we will explain how each of them arises.

When a man ships goods on board a vessel, he receives from the Captain a Paper Document acknowledging the receipt of the goods, and promising to deliver them to whomsoever shall be the owner of the Paper Document. This Document is called a **Bill of Lading**.

The shipper of the goods sends the Bill of Lading to the consignee, who directly he receives it may sell and transfer it to any one else : and so it may be sold and transferred any number of times. And whoever buys the Bill of Lading may go to the captain and demand the goods from him : and the captain is bound to deliver the goods to whomsoever is the owner of the Bill of Lading.

Similarly when goods are deposited in a Dock Warehouse, the Dock Master gives a Paper Document, or Receipt for them, of a similar nature to the Bill of Lading : which Document is called a **Dock Warrant**. This may be sold and transferred any number of times like a Bill of Lading, and whoever buys the



Dock Warrant becomes the owner of the goods described in it, and is entitled to demand and receive them from the Dock Master.

And there are other Paper Documents of a similar nature.

Now, it is to be particularly observed that, although the goods are delivered into the temporary custody of the captain and the dock master, they have no **Property** in them. They have a mere Right of Possession of them. The Property in the goods remains in the shipper, or the depositor, and is transferred by him along with the Bill of Lading or the Dock Warrant.

The goods are what is termed in Roman Law **Depositum**, and in English Law a **Bailment** : the Captain or the dock master is the mere **Bailee** or **Trustee** of the goods, and not their **Owner** or **Proprietor**. He has no right to convert them to his own use : and if he did so it would be a robbery : and he would be punished as a *thief*.

Thus in these cases the goods are merely delivered into the temporary custody of the captain or dock master : and no new Property is created. The Bill of Lading and the Dock Warrant form **One** Property with the goods, and cannot be separated from them. The goods travel along with the Paper Document. Thus it may be said in this case that the Paper Documents *represent* goods. In every case where a Bill of Lading or Dock Warrant is offered for sale or pledge, there must be some specific goods to which they are the Title ; and if there were not, it would be an indictable offence. In fact, buying the Paper Documents is only a convenient method of buying the goods themselves.

In this case there is no Exchange, and these documents have no Value : i.e. they cannot be bought and sold, or exchanged separately and independently of the goods. They are not exchangeable for goods *generally* : but are Titles to certain specific goods, and to no others. No one ever spoke of the **Value** of a Bill of Lading or Dock Warrant. Such Documents are not Credit : because the owner of them does not simply *believe* that he can get goods for them : but he *knows* that he has acquired the Property in certain specific goods. These

Paper Documents are in themselves **Nothing**, and are no addition to the general mass of Exchangeable Quantities.

In a similar way when a person borrows money by way of mortgage on land, he actually sells the land to the lender of the money : and the Mortgage Deed is the Deed of Sale, and the Title that specific piece of land. A Mortgage deed is a deed of sale of the land with a Right of repurchase by the mortgagor on repaying the money borrowed.

Hence all these Documents, Bills of Lading, Dock Warrants, &c. : and also Mortgage deeds belong to the class of **Jura in re**: they are Real Rights or Corporeal Property.

29. But Bills of Exchange, Bank Notes, and all Securities for Money, arise out of transactions of an essentially distinct nature. They all arise out of the sale or exchange of the **Mutuum**. Paper Credit always arises out of an **Exchange**, and never out of a **Bailment**. It is the fundamental requisite of all kinds of Paper Credit that they shall be absolutely severed from any specific sum of money. They are even forbidden to be made payable out of a particular fund. They must be nothing but abstract Rights against the **Person** : and that is the very circumstance from which they derive their name : because they must be received on the simple *belief* that the person can pay them. If any specific sum of money were set apart for their payment, they would not be **Credit**. Bills of Lading and Dock Warrants also go with the goods : Bank Notes and Bills of Exchange are always exchanged for Money, goods, &c. Bills of Lading *represent* goods, but are not of the *Value* of goods, because there is no exchange, and there can be no Value without an exchange. Bank Notes, Bills, &c., do not *represent* Money, but they are of the *Value* of Money, because in their case there is always an exchange. And Credit in all its forms is a mass of independent exchangeable Property : as is well known to every Lawyer, every Merchant, and every Economist.

*On the Quantity of Credit compared to the Quantity of*  
**Money**

30. Credit then being distinctly shown to be a mass of independent exchangeable Property, it is of considerable interest

to discover the ratio which Credit and Money bear to each other in modern commerce. The difficulties which prevent private inquirers from arriving at any reliable result are very great : and the opportunities which are presented by Parliamentary inquiries into Commercial Crises are very rarely made use of for any but their immediate purpose. In the Report, however, of the Committee of the House of Commons on the crisis of 1857, there is given an interesting statement by Mr. Slater. Having analysed the operation of his house for 1856, he gave in the following table as showing the proportion in which each million of payments and receipts were made in Money and various forms of Credit :—

*Receipts*

	£	£
In Bankers' drafts, and Mercantile Bills payable after date . . . . .	533,596	
Cheques payable on demand . . . . .	357,715	
Country Bankers' Notes . . . . .	9,627	
	<hr/>	900,938
Bank of England Notes . . . . .	68,554	
Gold . . . . .	28,089	
Silver and Copper . . . . .	1,486	
Post Office Orders . . . . .	933	
	<hr/>	99,062
		<hr/>
		£1,000,000

*Payments*

	£	£
By Bills of Exchange . . . . .	302,674	
Cheques on London Bankers . . . . .	663,672	
	<hr/>	966,346
Bank of England Notes . . . . .	22,743	
Gold . . . . .	9,427	
Silver and Copper . . . . .	1,484	
	<hr/>	33,654
		<hr/>
		£1,000,000

Here it is shown that in this great house, which may be reasonably supposed to represent commerce in general, Gold did not enter into their operations to even so much as 2 per cent. And this may furnish a clue by which we may obtain a rough estimate of the amount of Credit. It is usually estimated

that the Gold in the country is somewhere about £120,000,000 : and if there is 50 times as much Credit in the country as the above figures would seem to indicate, it would appear that there must be somewhere about £6,000,000,000 in Credit in the country.

This of course is only a rough approximate estimate, but it is sufficient to show the enormous magnitude of this species of Property, and its supreme importance in modern times. This Credit produces exactly the same effects, and affects Prices exactly as so much Gold : and it is through the excessive creation of this kind of Property that all Commercial Crises are brought about.

Moreover, when we grasp the conception, that all the mass of Credit is so much exchangeable Property which can be bought and sold like any material chattels, it compels a thorough reinvestigation of all the Fundamental Conceptions of Economics : and shows how erroneous the doctrine is that **Labour** and **Materiality** are necessary to **Value**.



**Section II***On the Transfer of Credit or Debts*

**31.** Having now explained the real nature of Credit, and shown that it is the Name of a species of Property, which in this country exceeds any other single species except the Land, our next inquiry is how it is transferred, or sold, and exchanged.

When it is seen that a Bank Note is transferred and passes from hand to hand like a piece of money, it might be supposed that any other Debt might be sold and transferred with equal facility. There is, however, very considerable subtlety regarding the Sale of Debts, and it was only by very slow and gradual degrees that they came to be capable of being freely sold.

If it were asked what discovery has most deeply affected the fortunes of the human race, it might probably be said with truth—The discovery that a Debt is a Saleable Commodity.

When Daniel Webster said that Credit has done more a thousand times to enrich nations than all the mines of all the world, he meant the discovery that a Debt is a saleable Chattel: and may be used like Money, and produce all the effects of Money.

We must now give a sketch of the origin and progress of the power of selling Debts.

It has been seen in Chap. I. that when Property was held in Contract, or Obligation, neither party could substitute another person for himself without the consent of the other party. Consequently, if one person had a Right of action against another for a sum of money, he could not sell that Right to another person so as to bind the Debtor to pay the Transferee.

It is Law and common sense that no person can be made a party to a contract without his own consent, and that no one can stipulate for another without his authority.

Thus the Digest says—' *Alteri stipulari nemo potest.*' 'No one can stipulate for another.'

Hence, although the Creditor might sell his Right to another person, he had no power to compel the Debtor to pay him without his own consent.

*On the Sale or Transfer of Debts in Roman Law*

32. For many centuries the Romans divided Property into two classes, according to the method by which it might be alienated, sold, or transferred. That species of Property which they first possessed, and which was most especially considered to constitute the patrimony of the *domus*, they called *Res Mancipi*: and this could only be transferred and sold by the very strict formalities and solemnities of the sale *per æs et libram*.

Other Property, which was held in less esteem, was called *Res nec Mancipi*, and this might be transferred by simple delivery. This class of Property included most kinds of Incorporal Property, and among them Debts.

The words *Contractus* and *Obligatio* do not belong to early Roman Jurisprudence. The relation between Creditor and Debtor was termed *Nexum*, a Bond, in the Code of the xii. tables. Money was classed under the *Res Mancipi*; and therefore the *Mutuum*, or sale of Money, could only be effected by the solemn form of the weight and scales (*per æs et libram*).

In process of time the solemnity of the *æs et libra* was dispensed with, and sales were effected by a solemn question (*stipulatio*) and answer (*responsio, promissio*) between the parties in the presence of the usual witnesses: and so the *nexum* was effected by the *stipulatio*. The discharge was called *solutio*.

The Credit, or the Debt, created by the delivery of the *Mutuum* was classed under *Res nec Mancipi*, and therefore could be transferred by mere delivery.

If any part of the Code of the xii. tables treated of Obligations, it is not extant: and therefore it is impossible to say whether the Romans at that time were in the habit of selling and transferring ordinary Debts between private persons.

But at the time of the xii. tables the Romans were to a certain extent accustomed to the transfer of Debts. There is every reason to suppose that they were the inventors of Bank-

ing in Europe—namely, where traders receive money from the public, and give them Credit for it on their books, and payments are made by transferring Credits from one account to another.

Although Credits or Debts were classed under the *Res nec mancipi*, or Property which passed by mere delivery, they could not be transferred by manual delivery. As has been already said, the Romans did not till a very late period adopt the Greek practice of recording the evidence of Debts in written documents, the delivery of which is equivalent to the delivery of the Credit itself, so that Credits or Debts may be the objects of strict manual delivery like any material chattel.

The first notice we have of the transfer of Debts among persons not bankers is in Gaius. He says that, though Debts were classed among the *Res nec mancipi*, as they could not pass by manual delivery, it was necessary for the three parties, the Creditor, the Debtor, and the Transferee, to meet together. If they then agreed among themselves that the Creditor might transfer his Right against the Debtor to the Transferee, the parties entered into the solemn verbal agreement, the *stipulatio*, before witnesses, by which the Creditor transferred his Right against the Debtor to the Transferee. When this was done, the Creditor was discharged from his debt to the Transferee : and at the same time he discharged his Debtor from his Debt to him. The contract established between the Transferee and the original Debtor, was termed a *Novatio*, because it was a new contract substituted for the previous one : and the assignment of the Debtor to the Transferee was termed *Delegatio*. When the solemn stipulation was completed, the Transferee might sue the Debtor in his own name, because there was now a privity of contract between them.

33. But the Creditor could not transfer his Debt to any one else without the consent of the Debtor, so as to enable the Transferee to sue the Debtor without his consent, because he could not guarantee that the Debtor would pay the Transferee. Hence a Creditor could not divest himself of the legal estate in his Debt without the consent of the Debtor.

The early simplicity of the Code of the xii. tables knew

nothing of Trustees or Attorneys. Every man was either the absolute Proprietor of a thing, or he was not. He in whom the legal estate was vested was termed *Dominus ex jure Quiritium*, or Proprietor, by the Common Law of the Romans. It knew nothing of double or subordinate Rights. The Code of the xii. tables allowed no man to sue in the name of another in private cases. He alone who was *Dominus ex jure Quiritium* might sue, and that in person. And as no man could sue another unless there was some Contract, *Nexum*, or Relation between them, the Transferee of a Debt could not sue the Debtor because there was no privity of contract between them.

The Code of the xii. tables was maintained in all its strictness for about 277 years. During this period the forms of writs were defined with great strictness. They were called *Legis actiones*, or, as we might say, Common Law writs : and as long as these lasted no one could sue on behalf of another, or in the name of another. Consequently, so far as we can understand, the Transferee of a Debt could maintain no action against the Debtor.

But in the progress of time new wants, new rights, new interests, and new ideas grew up : and a great Equitable jurisdiction came into existence to meet the new requirements. The supreme judicial Magistrates, the City and Foreign Prætors, were clothed with the power *adjuvandi; vel supplendi; vel corrigendi juris civilis gratiâ, propter utilitatem publicam*. The Romans had too deep a reverence for their code, which Cicero declared to contain more utility in one chapter than all the libraries of the Philosophers, to permit the Prætor actually to abolish any of its Laws ; but only to supply their defects, and extend their meaning. But new Rights and new Interests had grown up, which were not capable of being protected directly by the laws of the xii. tables.

Among these new Rights were Equitable Interests : one person might be possessed of the legal estate in certain things, but permit another person to enjoy their use or profit, without undergoing the formal solemnity of the transfer by mancipation or the *cessio in jure*. The original owner therefore possessed the *nudum jus Quiritium*, the mere legal right, while the

grantee possessed the profitable, equitable, or, as it was afterwards termed, the *bonitarian*, use.

Thus, if a Creditor sold or transferred a Debt or Right of action, without the consent of the Debtor, he alone possessed the *nudum jus Quiritium*, but the Transferee possessed the Equitable Right to it : but he had no Right of action by the Code of the xii. tables.

In order to protect these Equitable Interests without directly contravening the fundamental laws of the xii. tables, the Prætors gradually created the great system of Legal Fictions : and these Fictions were applied to protect the Equitable Rights of the Transferees of Debts.

About the year 577 A.U.C., or 176 B.C., the *Lex Æbutia* abolished the old *Legis actiones*, which were not part of the Code of the xii. tables, but only a series of writs framed by the Magistrates, so as to be adapted to them. New forms of writs were prepared by the authority of the Prætors, called *Formula* : and these were adapted and extended by two *Leges Juliae*.

By these new *Formulae* parties were allowed to be represented by *Cognitores* or *Procuratores*, that is Attornies, who were allowed to sue for their clients. The Transferee was then allowed to sue as the Procurator or Attorney of the Transferee. Gaius gives the formula of the writ in such a case.

The Prætor could only grant an *actio directa* or *vulgaris*, or common law writ to the original Creditor : but he could grant an *actio utilis* or *fictionis*, or an equitable writ, to the Transferee of the Debt.

When a Creditor sold or transferred his action he was said *cedere* or *mandare actionem*. The Transferee was called *Procurator in rem suam*, or Attorney on his own behalf : he was acknowledged as the real plaintiff, *si in rem suam datus sit procurator, loco Domini habetur* : his mandate could not be revoked, and he owed no account to his principal.

Such was the state of the Law regarding the sale or transfer of Debts in the time of Gaius, who is generally supposed to have written his Institutes in the time of the Antonines. They were the text-book of Roman Law throughout the whole Roman Empire when the Romans left Britain : and it is now supposed by many high authorities that they were to a great extent the

source and origin of the Common Law of England. And the Common Law of England with regard to the Sale of Debts was exactly as is stated by Gaius: until it was superseded by the recent Supreme Court of Judicature Act.

34. Some time after Gaius the Emperor Alexander Severus, acting probably under the advice of Ulpian, published a constitution in the year 224 A.D., by which the absolute freedom of the Sale of Debts without the knowledge or consent of the Debtors was recognised and allowed.

‘Omnium rerum quas quis habere, vel possidere, vel **persequi potest** venditio recte fit.’

‘*Everything may be sold which one may have or possess, or has the **Right to sue for.***’

‘Nomina eorum qui sub conditione vel in diem debent, et emere et vendere solemus. Ea enim res est quæ emi et venire potest.’

‘*We are accustomed to **buy and sell Debts payable on a certain event or on a certain day.** For that is Wealth which can be bought and sold.*’

‘Nominis venditio etiam ignorante vel invito eo adversus quem actiones mandantur, contrahi solet.’

‘*It is usual to sell a Debt without the knowledge or even against the consent of the Debtor.*’

‘Certi et indubitati juris est ad similitudinem ejus qui **personalem** redemerit actionem, et utiliter eam movere suo nomine conceditur, etiam eum qui in rem actiones comparaverit, eâdem uti posse facultate.’

‘*It is clear and undoubted law that, just as he who has bought a Personal action may sue out a writ in his own name: so he who has bought a Real action has the same power.*’

In the time of Gaius the Transferee of the Debt could only sue as the Attorney of the Creditor or Transferor, as he was obliged to allege the *jus Quiritium* or the legal estate of the Transferor: but the necessity of this was taken away by Justinian, who abolished the *nudum jus Quiritium*, which had become an absurd enigma which puzzled Law students, and then the Transferee could sue in his own name.

‘Ordinarium visum est nominis venditionem utiles emptori

(sicut responsum est) vel ipsi creditori postulanti dandæ actiones.’

‘It is seen that it is usual to grant a writ on the sale of a Debt either on the demand of the buyer (as has been decided) or of the Creditor himself.’

Thus, at length, the complete emancipation of a Debt from the general rule of law affecting Property held on contract was effected : and it was made as completely and freely saleable as any other material chattel : and thus a Debt was removed to the category of Property held in Dominion.

**35.** The laws regarding the Sale of Debts were fully adopted and confirmed in the Basilica : and thus they have ever since been the general Mercantile Law of all Europe, except England, to which the legislation of Justinian never extended.

Thus Azo, one of the earliest legal luminaries on the revival of learning in the West, says—

‘De actionibus autem venditis sciendum est quod omnes actiones vendi possunt sive sunt puræ, sive conditionales sive reales sive personales.’

‘But with respect to the Sale of Actions, it must be understood that all Rights of action, whether simple or conditional, or real or personal, may be sold.’

**36.** This investigation clears up a difficulty which has puzzled some modern writers. The earliest Bills of Exchange extant contain no words of negotiability : and yet we know as a fact that they were negotiated. And several writers have endeavoured to discover when Bills of Exchange were first made negotiable. Some have supposed that it was done by Cardinal Richelieu. But all obscurity and doubt has now been cleared away. Bills of Exchange required no words of negotiability to make them saleable, because they were so by the general Mercantile Law of Europe.

This also explains a fundamental distinction between Scotch Bills and English Bills. It has never been necessary to insert words of negotiability in a Scotch Bill : they are saleable by their very nature : and the reason is that Scotland adopted the Mercantile Law of the Pandects as its Common Law. So that

a Scotch Bill is transferable at the will of the Creditor, and the transferee may sue the Debtor in his own name. By the recent Act the principle now applies to English Bills.

About 467 A.D. the Emperor Leo relaxed the rigorous formalities of the *stipulatio*: and enacted that a clear consent given in any form of words should be sufficient. In the time of Justinian written Obligations had become usual, and any Obligation in writing bound the Obligor.

#### *On the Sale of Debts in English Law and Equity*

37. We must now trace the origin and progress of the power to sell Debts in English Law and Equity.

It had long been alleged that it was a fundamental doctrine of English Common Law that *Choses-in-action* are incapable of being assigned and transferred. This doctrine was sanctioned by the weighty name of Lord Coke, who says in a well-known passage—'And first was observed the great wisdom and policy of the sages and founders of our Law, who have provided that no possibility, Right, Title, Thing-in-action, shall be granted and assigned to "strangers": for that would be the occasion of multiplying contentions and suits, of great oppression of the people, and chiefly of terre tenants, and the subversion of the due and equal execution of justice.'

Now, without inquiring yet what Lord Coke's qualification of a 'stranger' may mean, his *dictum* has been repeated a multitude of times by a long line of judges both at law and in equity, usually with the qualification 'stranger' omitted, so that it has been made to appear in the broadest possible terms that a Debt or *Chose-in-action* was incapable of being assigned, or sold under any circumstances whatever, at Common Law: and also that there was some peculiarity as to the non-alienability of debts, distinguishing them from other property in this respect.

It may still be seen stated in the current text-books of Mercantile Law that *Choses-in-action* are absolutely unassignable at Common Law: that Bills of Exchange were an exception to this rule introduced by the *Lex Mercatoria*, and allowed for the convenience of trade: that Promissory Notes were not within the Law merchant—and were first legalised and made negotiable by the Act of Anne (1704) c. 9.



All this doctrine has been recently investigated, and set aside and annulled by a solemn judgment of the Exchequer Chamber.

In the first place, it may be said, with all due respect for Lord Coke, that the reason he alleges for the supposed non-alienability of Debts cannot be received as satisfactory at the present day.

The true reason was far deeper, and had a far more general application, and has already been sufficiently explained. It was that a Debt is Property held in Contract, and therefore neither party could substitute another person for himself without the consent of the other party.

Moreover, so far from the non-alienability of Choses-in-action being an exceptional rule of property in English Law, as it was in Roman Law, it was the rule applicable to enormously the greater portion of Property under the Feudal system : and the rule of free alienability only applied to the comparatively insignificant amount of personal property.

The essence of Roman polity was equality and absolute dominion. By the Common Law of the Romans every man was the absolute proprietor of his possessions, including his wife, children, and slaves. He did not live in a state of contract with any one. As regarded his *familia*, he was *Dominus ex jure Quiritium* : as regarded his fellow-citizens, he was their equal. Consequently the state of Contract between Roman citizens was comparatively rare, principally confined to the case of Creditor and Debtor : and, as we have already seen, Debts by the early Roman Law were not assignable without the consent of the Debtor.

But the whole structure of Feudal society was essentially different from Roman Equality and Dominion. The very essence of Feudalism was that the Dominion, or absolute Property in the soil, vested in the Sovereign as the representative of the nation. Thus the Sovereign represented the head of the Roman household. The territory belonged to the nation as a body : but the Sovereign alone exercised all Rights over it. Absolute Property in the soil, either the Dominion of the Roman or the Allod of the German, is impossible to any private person in England.

The Sovereign granted Feuds to his followers, first during pleasure, then during life, then in perpetuity : but always on the express condition of certain services being rendered. These tenants were therefore in a state of contract with the Crown : and they in like manner granted parcels of their feuds to their vassals on similar conditions : and these vassals would have still further subdivided their grants if they had not been restrained by law.

The result of this was that the whole state of society was one of contract. The structure of Roman society was essentially level : the structure of Feudal society was essentially pyramidal. Every one, from the highest to the lowest, was fixed in a state of contract. The intermediate ones were in a state of double contract, both with those above and those below them. All Feudal property was therefore of the nature of a *Chose-in-action* : no one could change his position, or alienate his property, by substituting a stranger for himself, without the consent of the other parties to the contract.

Thus, in a state of pure Feudalism the Tenant of Land from the Crown could not substitute another person for himself at his own will and pleasure, without the consent of the Crown and of his own vassals, for the very same reason that neither the Creditor nor the Debtor could substitute another person for himself without the consent of the other party ; because it was Property held in Contract or Obligation.

A strict Military Feud was by its very essence and nature inalienable. But gradually this rigour was relaxed : and Feuds were created alienable ; and when the Grantor so created them alienable by granting them to the grantee and his *assigns*, they were assignable, and the assignee was enabled to sue the grantor in his own name.

38. In process of time the relation of Lord and vassal in Feudal law changed from a Bilateral Contract, in which there were Rights and Duties on both sides, to the simple relation of the modern Landlord and Tenant, or a Unilateral Contract, where there is the simple Right on one side to demand rent, and the simple Duty on the other side to pay it. And then the necessity of the Tenant to *attorn* to the new landlord gradually

fell into disuse, and was finally abolished by Act, Statute (1705) c. 16, s. 10 : and estates in Land were made freely saleable and transferable without the consent of the tenant. This Act was drawn by the great Lord Somers : it was exactly parallel with respect to estates in land with the constitution of Alexander Severus already mentioned, declaring that a Creditor might freely sell and transfer his Right of action against his Debtor without his consent. By this means Estates in land were gradually removed from the category of Property held in Contract to that of Property held in Dominion.

**39.** The progress of the power of selling Debts or *Choses-in-action* in England has been exactly similar to that in Roman Law, and to the power of selling Estates in land in English Law.

By the Common Law of England a Creditor cannot sell his Debt without the consent of the Debtor, so as to give the Transferee a right of action in his own name. But Bracton expressly describes *Novation* as allowed by English Law, when a Debt was assigned by the consent of the Debtor. And so it became usual to grant Annuities payable to the grantee and his assigns. And a series of decisions extending through three hundred years from the reign of Edward III. to that of William III., unanimously held that, wherever the Obligor granted an Obligation transferable in its inception, and payable to the grantee and his assigns, that it was transferable, and that the Transferee might sue the Obligor in his own name.

**40.** If the Obligor or Debtor had not given his consent, the difficulty in English Law was overcome by a similar contrivance as we have seen in Roman Law. As early as Henry VI. the Transferee might sue in the name of the Transferor : or the Transferor might sue as Trustee for the Transferee.

**41.** In the reign of William III., when Bank Notes and Promissory Notes payable to bearer came into common use, several cases were brought before the Courts : and the Courts held them to be perfectly legal mercantile documents, and that the bearer or holder of them for value might sue on them.

However, Lord Holt and the Court of Queen's Bench denied this doctrine, and in a series of cases they held that *Choses-in-action* are absolutely inalienable by the Common Law of England : that Bills of Exchange were an exception to the Common Law, and only adopted from the *Lex Mercatoria*, and that Promissory Notes are not legal and mercantile documents. In consequence of these decisions the Act, Statute 1704, c. 9, was passed placing Promissory Notes in all respects on the same footing as Inland Bills of Exchange.

Ever since then it has been laid down in all text-books as a fundamental doctrine of the Common Law of England, that *Choses-in-action* are absolutely inalienable, so as to allow a Transferee to sue in his own name : that Bills of Exchange have only been allowed as a part of the *Lex Mercatoria* : and that Promissory Notes were not legal documents, and only legalised by the Statutes of Anne.

Thus Lord Cranworth said in a well-known case in the House of Lords that it could not be tolerated by the Law either of England or Scotland, that any one should issue a floating Right of action against himself : and this doctrine was reasserted in another well-known case by Blackburn, J., giving the Judgment of the Court of Queen's Bench in the absence of the Lord Chief Justice.

But in 1875 this very point came for determination before the Court of Exchequer Chamber in the great Mercantile case of *Goodwin v. Robarts*. In the course of the argument the Lord Chief Justice spoke in terms of the strongest condemnation of the series of decisions in the Queen's Bench by Lord Holt, and said they were a blot on our judicial history : and they were solemnly reversed and annulled : and it was declared that the Act of 1704 was a declaratory Act, laying down the true Common Law on the subject : and that Promissory Notes payable to bearer are strictly legal at Common Law. This Judgment was affirmed by the House of Lords in 1876.

Thus this great Mercantile case has established the doctrine that it is strictly legal at Common Law for any person whatever to issue Notes payable to bearer on demand : and this Right can only be modified, or taken away by Statute.

**42.** By the Supreme Court of Judicature Act of 1873, which came into effect on November 1, 1875, the consent of the Debtor to the transfer of the Debt is rendered unnecessary ; and it is enacted that any absolute assignment of the Debt in writing by the Creditor shall be sufficient to transfer the Property in it : and that in all cases where the doctrines of Common Law conflict with those of Equity, the rules of Equity shall prevail.

Thus at length Debts, or Choses-in-action, have been emancipated from the doctrine of attornment : and the Sale of Debts has become absolutely free.

#### *Upon Instruments of Credit or Debt*

**43.** The Commodity or Merchandise named Credits or Debts may now, then, be sold and transferred as freely as any material chattels : but so long as they remain in the mere invisible form of a Debt, they cannot be the subject of manual delivery.

But we have seen that the Greeks hit upon the plan of recording this Right upon some material ; and when this was done, the Right itself became capable of manual delivery like any other chattel.

When the Credit or Debt is recorded on Paper or any other material, it is termed an **Instrument of Credit**, or **of Debt** : and it must be observed that when used in this case, this word **Instrument** has a technical meaning which is often overlooked.

The word **Instrument** has two distinct meanings.

1. Sometimes it means a tool, or means, or implement by which some purpose is effected. Thus Edgar says in *Lear*—

The Gods are just and of our pleasant vices  
Make **Instruments** to plague us.

So Smith speaks of Money as the ‘great Instrument of Exchange,’ or ‘Instrument of Commerce.’

2. But when Bills and Notes are termed **Instruments of Credit**, or **of Debt**, the word has a quite different meaning than when used in the phrase **Instruments of Exchange**.

In Instruments of Exchange, it denotes the *means* by which

Exchanges are effected : in the term **Instruments of Credit**, it means the Record, or Document, or written evidence of the Debt.

In Roman Law **Instrumentum** meant any evidence, whether oral or written, by which a Court or Judge was informed of a fact ; or of the merits of the case. Thus Suetonius speaks of the *Instrumenta Imperii*, the written records of the Empire : Quintilian speaks of *Instrumenta Litis*, the papers or documents relating to a cause : Tertullian and Erasmus call the Christian Scriptures the *Novum Instrumentum*.

This meaning is very common in English. Thus out of innumerable examples, we may quote from Hallam, 'is abundantly manifest by the *Instruments* of both the kings' . . . 'by mutual Instruments executed at Calais.' So Brougham, speaking of the American Declaration of Independence, says—'As the clock struck the hour when that mighty **Instrument** was signed.'

In these and similar cases, the word Instrument means a written Document or Record.

In English Law the word Instrument is restricted to written evidence : and is thus exactly equivalent to Document ; which is any writing which teaches or informs the Court of a fact. It means simply a written record.

Hence an Instrument of Credit, or of Debt, means any written evidence of a Debt. In Courts of Law and legal treatises these documents are invariably termed Instruments.

Instruments of Credit are usually said to be of three forms—

1. Orders to pay money.
2. Promises to pay money.
3. Mere acknowledgments of a Debt, usually termed an I. O. U.

But besides these there is a fourth form, though it is not usually classed under that term—namely, Credits or Debts recorded in the books of Bankers, in banking language termed Deposits. All these are written evidences or records of Debts.

It is well known that for a long time the origin of Bills of Exchange was involved in great obscurity. Many writers attributed them to the Jews, who were severely persecuted and expelled from France in 1181 by Philip Augustus. It has been

repeated by multitudes of writers that the Jews invented Bills of Exchange at this period in order to transmit their effects to foreign countries. But such an idea could only have arisen from an entire misconception of the nature of Bills of Exchange, and of an Exchange. However, the mystery is now completely cleared up. We have seen that they were the invention of the Roman bankers, and that their use was quite common in the time of Cicero: and their use never died out: although from the troubled state of the countries involved in the fall of the Roman empire, dealings in Credit between distant towns may probably have diminished.

44. In the eleventh century Europe had again begun to assume a somewhat more settled state. The cities of Lombardy especially devoted themselves to commerce: and Gallenga says that a treaty between the city of Asti and Humbert II. of Savoy in 1095 shows that the cities of Asti and Chieri had already begun to introduce the system of Bills of Exchange and Banking into France and England.

Weber says that Bills were in common use in Venice in 1171. A charter granted to the city of Hamburg in 1189 authorised them to deal in Bills. In 1243 a statute of Avignon relates to *litteræ cambii*: and one of Venice in 1272.

About this period the system of Bills of Exchange received an immense extension. In the times of the Crusades the Popes claimed the right to tax all Christendom for their support. They had their own money dealers termed *Cambiatores*, who kept tables in the Cathedrals to exchange the money of foreigners who came to worship. These persons sent their own agents into different countries to collect the Papal tribute. As soon as they collected a sum they sent the Pope bills upon their principals and correspondents. These Bills were called *Litteræ Cambiatoriæ*. In the twelfth century Florence became very famous for this 'banking' business, as it was called. Lucca, Siena, Milan, Placentia, and other towns, were also famous for it. Cahors, in France, also became a great Monetary or Banking centre: and the name of *Caorsini* became synonymous with usurers: and Dante places them in the Inferno in very strange companionship for this imaginary crime.

In 1229 these persons were first introduced into England. The Pope sent his chaplain Stephen and a nuncio to demand a tenth part of all the moveable goods of all persons, lay and clerical, in England, Ireland, and Wales to support his war against Frederick Barbarossa. The feeble king agreed to this extraordinary demand: but in a Parliament held to consider it, the lay lords indignantly refused to subject their lands to the Pope. The unfortunate ecclesiastics had no resource but to yield. The Pope drew bills upon all the bishops and abbots, which they were obliged to honour under a threat of excommunication. A detachment of Caorsini came over with the nuncio to London, and settled there in order to lend money at heavy interest to the bishops to enable them to meet the Pope's drafts.

We have no notices when the use of Bills by merchants became common. The earliest commercial bill known to exist is dated 1381. One is quoted by Capmany of the date 1404, drawn by a Lucchese merchant in Bruges on his correspondent at Barcelona, and negotiated in Bruges, but dishonoured at Barcelona. In the archives of Venice there are several bills of the fifteenth century drawn by Venetian merchants on their correspondents in London, but sent back protested for non-payment. In none of these bills are there any words of negotiability, because they were so by the general law of Europe.

45. Obligations, by the Common Law of England, were not payable to any one but the payee, without the consent of the Obligor. Accordingly at a very early period it was usual to make obligations payable to the Payee, or his attorney, equivalent to the modern 'or order.' Matthew Paris quotes an Obligation of the Prior and convent of N, dated 1235, and made payable to certain Milanese merchants in London *aut uni eorum vel eorum certi nuncio*.

The Statute of Merchants, 11 Edward I. (1283), is the first law noticing mercantile Obligations. It enacts that, if their debtors did not pay at the agreed upon time, the merchants might bring them before the proper authorities, and the clerk should draw up an 'escrit de Obligation' or a 'lettre de Obligation,' which the official translation renders Bill Obligatory, to



which the Debtor was to affix his seal; binding him to pay on a certain day.

In the thirty-first year of his reign Edward I. granted a Statute to the City of London for the protection of foreign merchants, which enacted that they might pay the customs duties on their exports by Bills on their principals or partners.

¶6. It has been very generally supposed that Bills of Exchange were only in use among foreign merchants, and that Obligations in the form of Promises to pay were wholly unknown to commercial usage and the Common Law. This, however, is erroneous. There exists a work called Arnold's Chronicle, first published in 1502, but supposed to have been taken from an earlier work, containing many of the customs of the city of London in the reigns of Edward IV. and Henry VII. Several forms of Obligation are given in this work as being in common use. Several of these are termed Bills of Payment. i.e. Promissory Notes, made payable to the payee, or his 'attorney,' or his 'assignee,' and of Bills of Exchange made payable to the 'bringer' or 'bearer.'

As these are given as common forms in the reign of Edward IV., they must have then been in common use: but how long we have no means of knowing: and there is no instance of such a document being brought before a Court of Law.

At this time it was perfectly indifferent whether Obligations were drawn in the form of Orders to pay, or Promises to pay: they were equally valid at Common Law. *Non figurâ litterarum sed oratione quam exprimunt litteræ obligamur.* 'We are not bound by the form of the writing, but by the intention which it expresses' is equally common sense and Roman and English Law.

A Bill of Exchange in former times meant an Obligation to pay the value of a certain amount of the Money of one country in the money of another at a certain rate of exchange: and it was usual to draw the Obligation in the form either of an Order or a Promise: and either form was perfectly valid. When the Obligation originated with the Creditor, it naturally took the form of an Order to pay: when it originated with the Debtor, it naturally took the form of a Promise to pay. An

Obligation to pay in the money of this country was called an Inland Bill, whether its form was that of an Order or a Promise.

The word Bill meant any writing whatever, including Deeds. In Marlowe's *Faustus*, when Faustus is selling his soul to Mephistopheles, he tells Faustus that he

Must write it down  
In manner of a deed of gift ;

and Faustus, seeing his blood stop flowing, says—

Is it unwilling I should write this Bill ?

and then—

*Consummatum est* : this Bill is ended.

Then says Mephistopheles—

Speak, Faustus, do you deliver this as your Deed ?

So the word Note had exactly the same meaning : in former times the words Bill and Note meant any writing whatever its form. What in modern times are called Promissory Notes, were called Bills, Obligations, Bills of payment, Bills of Debt, Bills of Credit : Bank Notes were called Bank bills ; and still are so in many country districts in England.

Since, however, the Statute of Anne passed in consequence of the series of erroneous decisions in the King's Bench, the word Bill has been restricted and appropriated to Orders to pay money : and the word Notes to Promises to pay Money.

#### *Technical terms relating to Instruments of Credit*

**47.** As Instruments of Credit play such an important part in Economics, it will be useful to explain the meaning of the technical terms relating to them.

#### *Definitions of Instruments of Credit or Debt*

1. Any written record of a fact is termed an Instrument. Any written evidence of a Debt is termed an Instrument of Credit, or Debt.

2. A written Contract by which one person is bound to pay

(1) a certain sum of money : (2) to a certain person : (3) at a certain time : is termed an **Obligation** or **Security for Money**, or a **Valuable Security**.

3. A written **Order** from one person to another who *owes*, or appears to owe, him money as a **Debtor**, directing him to pay absolutely, and at all events : (1) a certain sum of money : (2) to a certain person : (3) at a certain time : is in modern language termed a **Bill of Exchange**, or shortly a **Bill**.

The usual form of a Bill of Exchange is this—

£258 14s. 6d.

London, May 4, 1880.

*Three months after date pay to myself (or A. B.), or order, the sum of Two hundred and fifty-eight pounds, fourteen shilling and sixpence for value received.*

To Mr. John Cox.

William Smith.

Strand, London.

4. A written **Promise** made by one person to pay absolutely, and at all events : (1) a certain sum of money : (2) to a certain person : (3) at a certain time : is in modern language termed a **Promissory Note**, or shortly a **Note**.

The usual form of a Promissory Note is this—

£148 9s. 10d.

London, May 4, 1880.

*Three months after date I promise to pay Mr. John Jones, or order, the sum of One hundred and forty-eight pounds, nine shillings and tenpence for value received.*

William Johnson.

5. A written Order addressed by one person to another who **holds** a fund not as his own property, but merely as the **Agent**, **Bailee**, **Trustee**, or **Servant** of the writer to pay a sum of money is termed a **Draft**, or **Order** for the payment of money.

6. A mere acknowledgment of a Debt, not containing any Promise to pay, is usually termed an I. O. U.

7. A Bill, Note, or I. O. U. is always a *Chose-in-action*, and operates as a charge or Credit against the *person* of the Debtor.

8. A Draft or Order is always a *Chose-in-possession*, and it operates as a charge or Credit against the fund.

*Definition of Parties to an Instrument of Credit*

1. In a Bill, the person who addresses the order is termed the **Drawer** : the person to whom he addresses it is termed the **Drawee** :

2. If the Drawee consents to pay the order, he must subscribe his name to it, usually on the face of it, and with the word 'accepted' before it; he is then termed the **Acceptor**.

3. In a Note the person who makes the Promise is termed the **Maker**.

4. The person to whom a Bill, Note, or Draft is made payable is termed the **Payee**.

5. The Acceptor of a Bill and the Maker of a Note is termed the **Principal Debtor** or **Obligor**.

6. Before the 36 & 37 Vict. (1873) c. 66 came into effect, unless the Obligor of a Bill or Note expressly made it payable to the Payee, or order, or bearer, the instrument could not be transferred so as to enable the Transferee to sue the Obligor at law in his own name : and such an Instrument was termed non-Negotiable.

Since that Act came into effect on November 1, 1875, this is no longer the case, and any Instrument of Credit or Debt may now be transferred so that the Transferee may sue the Obligor in his own name.

7. If, however, the Instrument is made payable to the Payee 'or order,' it cannot be transferred without the Payee's order : this the Payee does by writing his name, usually on the back of it : hence this signature is termed the **Indorsement**. The Payee is then termed the **Indorser** : and the person to whom he delivers it is termed the **Indorsee**.

8. The person who has the lawful possession of the instrument, either actual or constructive, and is entitled to sue the parties to it, is termed the **Holder**.

*Definitions of Terms relating to the Instrument*

1. To **Draw, Make, Accept, or Indorse** a Bill, Note, or Draft means, besides writing the instrument or the name on it, as the case may be, to **deliver** it to some person or his agent as his Property.

2. To **Issue** a Bill, Note, or Draft is to deliver it to some one, who thereby acquires a right of action in it.

3. To **Present** a Bill for **Acceptance** or **Sight** is to bring it to the Drawee, and request him to undertake to pay it.

4. To **Present** a Bill or Note for **Payment** is to bring it to the Principal Debtor and demand payment of it.

5. To **Collect** a Bill, Note, or Draft is to present it for payment as the Agent of the holder.

6. To **Retire** a Bill or Note is for one of the parties to it to buy it up, and so withdraw it from circulation.

7. To **Discount** a Bill or Note is to buy from the holder of it his Right to receive the money due on it.

8. To **Domicile** a Bill or Note is to state in it the place where it is payable.

9. To **Utter** a Bill or Note is for a person, either himself or by his agent, to use it in any way whatever to obtain Money or Credit by means of it.

10. If one person makes himself a party to a Bill or Note, either by Drawing, Making, Accepting, or Indorsing it for the use, benefit, or advantage of another person, without receiving any consideration for so doing or being indebted to such person, such an instrument is termed an **Accommodation Bill** or **Note**; and the person who so makes himself liable is termed the Accommodation drawer, maker, acceptor, or indorser, as the case may be.

The person for whose use, benefit, or advantage he has so made himself a party to the instrument has no right of action against him on it.

11. If a person merely writes a Bill or Note, or signs his name on one, and then retains it in his own possession, he does not *Draw, Make, Accept, or Indorse* it, as the case may be.

12. But if he then **Delivers** the instrument to another person without consideration, and for his accommodation only, so that the Transferee acquires a Property in it, the writer *Draws, Makes, Accepts, or Indorses* the instrument as the case may be: but he does not **Issue** it.

13. A Bill or Note is not **Issued** until it is delivered to some person who is entitled to sue all the parties to it.

14. The **Consideration** of a Bill or Note is **any loss or**

detriment to the plaintiff sustained at the request of or for the sake of the defendant : or **any** benefit to the defendant moving from the plaintiff.

Thus cross acceptances for mutual accommodation are respectively considerations for each other.

**Effect of Indorsement.** When a Bill or Note is made payable to the Payee, or order, it is necessary for the Payee to Indorse it. If the Payee simply writes his name on the back of it, it is termed a general Indorsement, or an Indorsement in blank. Its effect is to make the instrument transferable by mere delivery, without any further indorsement, exactly like a bank note or money : and then the instrument is payable to bearer exactly like a bank note.

Formerly Indorsement was in all cases *necessary* to transfer the Property in the instrument : but this has long ceased to be the case in English Law. It became the custom of merchants in England, which has long acquired the force of Law, that any Instrument of Credit indorsed in blank may be transferred by simple delivery, without any further indorsement.

It is, however, still the custom to indorse them on a transfer—at least there are very few persons who would take them without indorsement. And the effect of the indorsement is this, that if the bill is not paid by the acceptor at maturity, and if the owner or holder of it gives *immediate* notice to any or all the preceding parties to it, he has the right to enforce payment of it from them.

But this demand for payment must be made without delay ; in almost all cases within twenty-four hours after the fact of non-payment is known to the holder. If delay be made in notifying the fact, and demanding payment from the parties liable, they are absolved, and the holder's remedy is gone.

Thus, in modern practice, the indorsement is merely a limited *warranty of soundness*. There is no other difference between buying goods or money with a bill, with or without indorsement, than buying a watch or a horse with or without a limited warranty. It is in all cases a Sale. In the case of a Bill taken without indorsement, or a horse bought without a warranty, the sale is final and conclusive : in the case of a bill taken with an

indorsement, or a horse bought with a warranty, the sale may be cancelled if the defect be discovered, and the demand made within the time limited : otherwise it is final and conclusive.

The general rule of English law now is, that if any Instrument of Credit whatever, whether it be a Bank Note, or Bill of Exchange, be taken in exchange for goods or money in any transaction without indorsement : or if the period allowed for making the claim in the case of the unpaid bill be suffered to elapse, it is a final closing of the transaction, and the receiver has no remedy against the Transferee if the instrument is not paid. *The payment is in fact in all respects as final and valid, as if it were Money.*

Except only in the case of fraud, where the payer knows that the banker or person whose Bill or Note is tendered was bankrupt or insolvent.

And exactly the same rule applies to Bank Notes as Bills : when the Bank of England was founded, it was supposed that Bank Notes were not transferable at Common Law : accordingly, in the Act founding the Bank it was enacted that its Notes might be transferable by indorsement, *toties quoties*. This custom, however, soon fell into disuse : and also it is not generally usual to demand an indorsement on a banker's note : because it is payable on demand : nevertheless the same rule applies to bankers' notes as to bills : the receiver takes them without indorsement at his own peril.

**Section III***On the Extinction of Obligations**On the Limits of Credit*

48. It has been seen in the preceding sections that Credit is the name of a species of Incorporeal Property of the same nature as, but inferior in degree, to Money : and that it fulfils exactly the same functions as Money, as a medium of exchange or circulation. Also that it is Property cumulative to Money : that is, it is over and above money. Credit is in fact to Money what steam is to water : and while, like that power, its use within proper limits is one of the most beneficial inventions ever devised by the ingenuity of man : its misuse by unskilful hands leads to the most fearful calamities. Credit, like Steam, has its Limits : and we have now to investigate the proper Limits of Credit, and to explain the various methods by which it is extinguished. Because by its very name and nature, it is always created with the express intention, either of being, or of being capable of being, extinguished. It is **Unextinguished Credit** which produces those terrible monetary cataclysms which scatter ruin and misery among nations. It is chiefly by the excessive use of Credit that *over-production* is brought about, which causes those terrible catastrophes called Commercial Crises : and the inability of Credit shops to extinguish the Credit they have created—commonly called the failures of Banks—is the cause of the most terrible social calamities of modern times.

The true Limits of Credit may be seen by the etymology of the word. Because *all Credit is a Promise to pay or do something in future* : and that something, whatever it may be, is the Value of the promise. That 'something' need not necessarily



be money. It may be anything else. It may be a promise to do something.

The only real difficulty in the case is, as has been before reserved, to understand that the mere abstract 'Promise to pay' is independent and exchangeable Property, quite distinct from the thing itself, and it circulates in commerce by itself.

But of course it is manifest that the Value of the Promise is the Thing itself: and consequently if the Thing itself fails, the Promise has lost its Value. This consideration at once shows the Limit of Credit. Assuming Credit to be, what it is in its best known form in this country, the Promise to pay Money, it is quite clear that so long as a person is in possession of sufficient Money to pay his promise when it falls due, the Credit has not been excessive.

Commercial Credit, however, does not rest upon so solid a basis as the *certainty* of being in the possession of money: for then it would be as safe as Money itself, and then losses would be unknown. It is based upon the expectation of being in possession of Money at a certain time. A trader buys goods, and in exchange for them he gives his *Promise to pay* money, upon the expectation that he will be able to sell the goods for money before the bill becomes due: or at least that he will be in possession of Money before that time. That is, he *produces* or brings the goods to market, and offers them for sale, in the hope that they will be *consumed* or bought. If he brings forward for sale more of any species of goods than are wanted at that time, so that they cannot be sold at all: or if they are sold at a lower price than they cost: it is *over-production*. He must then pay his bills out of any other funds in his possession; or sell other property to meet them: and if he cannot do so he is ruined.

In times of great speculation and rapid fluctuations of prices, there is exceeding danger of over-production by means of Credit: especially that abuse of it called Accommodation Paper, which we shall describe hereafter. A new channel of trade perhaps is opened, and the first to take advantage of it make great profits. Multitudes of others hearing of these profits rush in, all dealing on Credit. The market is overstocked, and prices tumble down, and the Credit created to carry on these operations cannot be redeemed.

Or perhaps a great failure of the food of the people takes place : merchants expecting that food will rise very high, buy on Credit at higher prices than usual. If their calculations are sound, and the price of corn rises to the expected height, they pay their bills and all is well. But in all such cases there is the danger of too many merchants speculating in corn, and that such vast quantities may be poured in so that the price may fall.

Similarly in all changes from peace to war, or from long continued war to peace, great changes in prices take place, producing great destruction of Credit : and at such periods usually many failures occur.

The institution of Banks and Bankers who create Currency by means of their Credit, either in the form of Notes or Deposits, gives a great extension to the Limits of Credit : but yet the Principle of the Limit remains the same. Credit always has to be redeemed : and if this can be done the Credit has been sound. Hence Credit is never excessive, whatever may be its absolute amount, so long as it always returns into itself.

#### *On the Extinction of Obligations*

**49.** We have now to consider the various methods by which Obligations are extinguished. Credit being the Right to demand something to be paid or done, and the Debt being the Duty to pay or do that something, of course the Payment or the Performance of the thing promised fulfils, discharges, and extinguishes the Right as well as the Duty : and thus the Obligation is absolutely annihilated and extinguished. Commercial Credit in this country is always expressed to be payable in money : and it is sometimes supposed that Bills of Exchange are always paid in Money or in Bank Notes. This, however, is a great error. There are other methods by which Obligations are extinguished, besides Payment in Money. And in this country, the amount of Bills which are paid in money, is infinitesimal compared to those which are paid in other ways.

There are four different methods by which Obligations may be extinguished : these are—

1. By Release, or **Acceptilation**.
2. By Payment in Money.
3. By Renewal, or Transfer, or **Novation**.
4. By Set off or **Compensation**.

***On Release or Acceptilation***

30. As all Contracts or Obligations are created by the mutual Consent of the parties, so they may be extinguished and annihilated by the same consent which called them into existence.

An Obligation was created by the *Stipulatio*, or question and answer : so if the Creditor chose to release his Debtor, it was also done by question and answer.

The Debtor said before the legal number of witnesses— ‘What I have promised to you do you regard as received?’ The Creditor said, ‘I do, and have entered it as received.’ (*Acceptum fero*). He then entered the sum as received in his ledger : and this was termed **Acceptilatio** : and was the most valid and final form of Release.

***The Release of a Debt is in all cases Equivalent to the  
Donation or Payment in Money***

31. Euler, as we have seen above, says that if a man has nothing, and even owes 50 crowns, he has 50 crowns *less* than nothing. His Property is (- 50) crowns, i.e. he has the *Duty to pay* 50 crowns, and nothing to pay them with.

Euler also says that if any one made the Debtor a present of 50 crowns to pay his Debt with, though his Property then would only be at the point 0, he would be 50 crowns richer than before.

Euler is right so far as he goes : but he has only stated one-half of the case. Because the same result may be arrived at in another way. As the same result follows whoever gives him the 50 crowns, we may suppose that his Creditor makes him a gift of 50 crowns. The Debtor may then pay the Debt by giving the Creditor back his 50 crowns : and the Debt is discharged : and the Debtor, though now possessing 0, is 50 crowns richer than he was before.

The same result may be obtained in a quicker way : suppose that, instead of the double operation of the Creditor first giving the Debtor 50 crowns, and then receiving it back, he simply **Releases the Debtor from the Debt**. Then the Debtor's Property would be 0, and he would still be 50 crowns richer than he was before.

Now, if Money be Positive (+), the Gift (+) of Money is  $+ \times +$  : and if the Debt be Negative (-), the Taking away or Release (-) of the Debt is  $- \times -$  : which shows that  $+ \times + = - \times -$  in Economics ; as it does in every other branch of science.

This example shows that the **Release of a Debt** is in all cases exactly equivalent to a **Donation** or **Gift of Money**, or to a **Payment in Money** : a principle of immense importance in commerce : and the application of which may surprise the student.

**52.** So the Digest says—

‘ Qui Obligatione liberatur videtur cepisse quid.’

‘ He who is Released from an Obligation has gained.’

And the Basilica—‘ ὁ ἐλευθερούμενος ἐνοχῆς δοκεῖ τι εἰληφέναι.’

So the Digest—‘ Per accepti quoque lationem egens Debitor etiam eam pecuniam quâ liberatus est, cepisse videtur.’

‘ An insolvent Debtor, being freed by a Release, has gained the full amount of what he is Released from.’

So Pothier says—‘ A Release is a Donation.’

So Ortolan—‘ The Release from a Debt is always classed as a Donation in Roman Law.’

So Von Savigny—‘ A Simple Contract, or the Release of a Debt, may be the subject of a Donation.’

‘ The increase of wealth may result from a Credit given to the Debtor, or the Release of a Debt.

‘ Every Release of a Debt enriches the Debtor. The amount of the Donation is always equal to that of the Debt, even though the Debtor is insolvent. Although the Release from a Debt destined never to be paid seems a thing of no consequence, the increase of Property does not the less exist. In effect not only does Property represent a quantity always indeterminate, but its total Value also may be either *Positive* or **Negative**. [Negative Property is a Negative Right, i.e. a Debt or Duty.] If, then, Property is reduced to a Negative Value, the Diminution of Minus is in Law a change identical with the increase of Plus for a Positive Value.

‘ The Release of a Debt always constitutes a Gift equal to the amount of the Debt, even though the Debtor is insolvent.’

So the Release of a Debt to a Debtor may be a Legacy

**53.** This vesting of the *Right to demand* and the *Duty to pay* in the same person was called *Confusio* in Roman Law.

How *Confusio* extinguishes a Debt has given rise to much subtle speculation; and for centuries puzzled Jurists and Divines: for the Divines alleged that a Right once created could never be destroyed: and the Jurists said that, the Right being transferred to the Debtor, he cannot sue himself; and therefore that the Debt is extinguished.

This explanation, however, is not satisfactory, because in some cases a man can sue himself. He may fulfil two characters or persons: and in one character he may sue himself in another. And, moreover, this would only show that the Right is in abeyance, not that it is actually extinguished: and Jurists have shown that in several cases the Right and the Duty have separated, although they have vested in the same person. The considerations, however, which we have presented will give a complete solution of the case.

*The Release of a Debt may Extinguish an Obligation in Two ways*

**54.** The Release of a Debt may be considered to Extinguish an Obligation in two ways—

*First Method.*—As the Obligation was **created** by the mutual consent of the two parties: so it may be **cancelled** or **annihilated** by the same mutual consent which called it into existence.

Now by the general principles of the Theory of Signs; if to **Create** an Obligation be denoted by  $+\left\{\begin{array}{l} +\pounds 100 \\ -\pounds 100 \end{array}\right\}$ : then to **Cancel**, **Annihilate**, or **Decreate** an Obligation may be denoted by  $-\left\{\begin{array}{l} +\pounds 100 \\ -\pounds 100 \end{array}\right\}$ .

Let us now observe the effect of the Negative Sign on each of the parties to the Obligation.

The Creditor's Property becomes  $-(+\pounds 100)$ , or  $-\pounds 100$  that is, he has *lost*  $\pounds 100$ .

The Debtor's Property becomes  $-(-\pounds 100)$ : but  $-(-\pounds 100) = +\pounds 100$ : that is, the Debtor has **gained**  $\pounds 100$ : exactly as explained above.

Which shows that to **Cancel a Debt** is exactly equivalent to making a **Gift of Money**.

*Second Method.*—The Creditor's *Right of action* being a Chattel, Goods, or a Commodity, may be the subject of a Donation, or Gift, exactly like any other Chattel. He may present it as a Gift to any one he pleases ; and to the Debtor himself as well as to any one else. Then the Debtor's Property will be  $+\pounds 100 - \pounds 100$ .

These two Quantities cancel each other like  $+a$  and  $-a$  on the same side of an equation. They vanish together : the Right is not in abeyance : it is absolutely extinguished. The  $+\pounds 100$  ceases to exist as well as the  $-\pounds 100$  : and thus the Obligation is absolutely extinguished.

We may now give an important example of the *Release of a Debt* being equivalent to a *Payment in Money*.

Suppose a Bank which issues Notes wishes to increase its Capital, and invites subscriptions from the public. But if the holders of its Notes wish to subscribe, they pay their subscriptions in the Bank's own notes : and in return they receive so many shares. Thus the *Release of the Bank's Debt* is received as exactly equivalent to a *Payment in Money* : and that **Debt Released** is **Increase of Capital** to the Bank.

Or if a customer of the Bank wishes to subscribe, he simply gives the Bank a Cheque on his account : that is, he Releases the Bank from its Debt to him : and that **Debt released** is **Increase of Capital** to the Bank, exactly as the **Payment of Money**.

*When  $+\pounds 100$  cancels  $-\pounds 100$  : and when it does not*

55. It must be carefully observed that  $+\pounds 100$  and  $-\pounds 100$  in the same person do not always cancel each other in Economics : it is only in the case where the person has the *Right to demand* from himself, and the *Duty to pay* to himself, that the two quantities vanish, and the Contract or Obligation is extinguished. Because a person's Property may be represented by  $+\pounds 100 - \pounds 100$ , and therefore for practical purposes be equal to 0, and yet these two Quantities do not cancel each other.

Suppose that a person has  $\pounds 100$  in a Banker's notes, and at

the same time owes some one else £100. Then his Property will be  $+\text{£}100-\text{£}100$ , and in substance = 0; but in this case the  $+\text{£}100$  and the  $-\text{£}100$  do not cancel each other: and the  $+\text{£}100$  is not extinguished as an Economic Quantity, because the Debtor may leave his Debt unpaid, and pay away the notes in commerce.

Suppose that two bankers each hold £100 of the other's notes: then the Property of each banker is  $+\text{£}100-\text{£}100$ , and in substance equals 0. But in this case the  $+\text{£}100$  and the  $-\text{£}100$  do not cancel each other: and there are £200 of Economic Quantities in existence: and each banker may pay away the notes of the other.

If, however, they exchange Notes, then each banker has the *Right to demand* £100 from himself, and the *Duty to pay* £100 to himself: and then each of the Obligations is simultaneously extinguished: because each has performed his Duty of paying the other by Releasing him from a Debt.

The reason of this is obvious: because if a person possesses a Right of action against A, that is no fulfilment of his *Duty to pay* B.

Hence it is only when the Right and the Duty emanate from the same source and are again revested in the same source from which they emanated that they are cancelled and the Obligation extinguished.

#### *On Payment in Money*

**56.** The preceding considerations will explain how a Payment in Money extinguishes a Debt: which few persons have ever thought of.

Suppose that a person possesses £100 in money and owes £30: then his Property will be  $\text{£}100-\text{£}30$ : i.e. he possesses £100, but coupled with the *Duty to pay* £30 at some given time.

His Creditor's *Right to demand* is ( $+\text{£}30$ ).

When the Debtor pays the Debt in Money, it may be considered to take effect in two ways—

1. The Debtor gives the Creditor £30 in Money, and the Creditor gives him in exchange for it the *Right of action*. The Debtor now possesses the *Right to demand* £30 from himself,

and the *Duty to pay* £30 to himself: thus the +£30 and the -£30 cancel each other: the Obligation is extinguished: and the Debtor's Property is now £70.

2. The (-£30) denotes the Debtor's Duty to pay: and when he has paid, the Duty is performed and extinguished: the Creditor's Right to receive the £30 is also satisfied and extinguished: and thus both Quantities are extinguished, and the Obligation is extinguished.

The transaction is therefore seen to be an Exchange or Sale

Thus the Obligation or Contract was originally created by the Sale or Loan of the *Mutuum*: and it is annihilated by the Sale or Exchange called Payment. Hence the Obligation is created by one Exchange and is annihilated by another.

#### *On Renewal and Transfer, or Novatio*

**57.** The term *Novatio* in Roman Law meant substituting a new Obligation for the former one: so that the former one was extinguished. It was also called *Transfusio* or *Translatio*.

But this took place in two ways—

1. When the Debtor himself gave the Creditor a new Obligation, which he accepted in lieu and substitution of the previous one, which was thereby extinguished. The new Obligation is the Price or Payment of the old one. This is called by us **Renewal**.

2. When the Debtor transferred to his Creditor an Obligation, or Debt, due to him from some one else. If the Creditor agreed to receive this new Debt in payment of his Debt, he thereby discharged his own Debtor, and agreed to receive his Debtor's Debtor as his new Debtor. But he might retain his original Debtor as a Surety in case of failure of Payment by the new Debtor.

A familiar instance of this is where a Debtor pays his Creditor in Bank Notes. If the Creditor accepts these Notes in payment of his Debt, the Debtor is discharged, and the Creditor agrees to take the Banker as his new Debtor.

So also when a Debtor gives his Creditor a Bill of Exchange on another person.



Or if the Creditor and Debtor are both customers of the same bank, the Debtor may give his Creditor a cheque on his account ; the Creditor pays in the Cheque to his own account ; and the banker transfers the Credit from one account to the other. The banker is now freed from his Debt to the Transferer, and becomes Debtor to the Transferee.

58. When the new Debtor expressly consented to the transfer of the Debt he was said to be **Delegatus** : and the Transfer of the Credit was termed **Delegatio**.

This *Novatio*, or *Delegatio*, was equivalent to a Payment in Money.

The Digest says—‘*Verbum exactæ pecuniæ non solum ad Solutionem referendum est sed etiam ad Delegationem.*’

So the Basilica—‘*τὸ ῥῆμα τῶν ἀπαιτηθέντων χρημάτων οὐ μόνον εἰς καταβολὴν ἀναφέρεσθαι δεῖ, ἀλλὰ καὶ ἐς ἔκταξιν.*’

‘*The word Payment includes not only Payment in Money, but also the Transfer of a Credit.*’

So the Digest—‘*Solvit et qui reum Delegat.*’

‘*He pays who Transfers another Debtor.*’

So—‘*Delegare est vice suâ alium reum dare Creditori, vel cui jusserit.*’

‘*To Delegate is to give another Debtor instead of one’s self to the Creditor or to whomsoever he pleases.*’

In modern commerce this kind of *Novatio* is also called an ‘**Exchange**’ when effected by persons living in different places. A person living in one place may be Creditor to one person and Debtor to another person in some other place. If these two debts were settled in money, they would evidently require two transmissions at some expense and trouble. The matter may evidently be settled by the Debtor living in one place giving his Creditor living in the other an Order on his Debtor living in the same place : and thus both Debts will be discharged by the simple expedient of one person paying the money to his neighbour in the same place. It is just like a person paying a Debt by giving his Creditor a Cheque on his banker. The mass of reciprocal transactions of this nature which take place between different countries is called the Foreign Exchanges : a subject we shall have to investigate fully in a future chapter.

*On Set Off or Compensation*

**59.** If two persons are mutually indebted, each may claim that the Debt he has against the other shall be taken in payment of the Debt he owes.

If the mutual Debts are equal, each is Payment in full of the other : they are **weighed** and set off against each other. This is called **Set Off** or **Compensation**.

If one Debt is greater than the other; equal amounts **Compensate** each other; and the Balance only is paid in Money.

**60.** Simple as this principle seems, it took a very long time both in Roman and English Law to arrive at it.

In early Roman Law Compensation, or Set Off, was not allowed as a matter of right. Each Creditor had a right of action against the other.

Afterwards, in the time of Gaius, Compensation was not held to be Payment : but the Prætor, or Equity Judge, allowed a counter debt to be pleaded as a defence to an action of Debt.

Marcus Aurelius allowed it as a matter of right.

Bankers, however, were always obliged to allow set off for counter claims, and sue only for the balance. In other cases the Judge was allowed at his own discretion to allow cross claims.

**61.** The principle of the early Common Law of England was exactly the same as the early law of Rome. If two persons were mutually indebted, each must bring his action against the other. Equity, however, always allowed Set Off.

In many cases, however, the want of such a legal principle led to great injustice, and an Act, Stat. 4 Anne, c. 17, allowed set off in cases of bankruptcy : and this was extended by statutes 2 Geo. II. c. 22, s. 13, and 8 Geo. II. c. 24, s. 4. Now by the Supreme Court of Judicature Act, when the rules of Equity are adopted in full, Compensation is a complete answer in all cases : hence if two persons are mutually indebted, each Debt is Legal Tender, or Money, for the Payment of the other.

Both Debts, however, must have actually accrued due at the time of Set off or Compensation.

As, for instance, if a banker holds the acceptance of his

customer not yet due, he cannot retain a balance on his current account to meet it.

So if two merchants hold each other's acceptances, one of which is due and the other not due, they cannot be set off against each other.

**62.** The following are examples of Set off or Compensation.

1. Suppose two bankers issue Notes and each has got possession of an equal amount of the other's Notes, say £100. Then each has a *Right of action* (+ £100) against the other : and at the same time a *Duty to pay* (- £100) his own Notes.

While the Notes of each are in the hands of the other, there are of course £200 of Rights of action, Credits, or Debts, or Economic Quantities in existence. But when they meet to adjust the Payment, each tenders to the other the Rights of action he has against him in payment of the Debt due from himself. By this operation each has performed his Duty, and paid his own Debt by Releasing the other from his Debt. Each banker has now the *Right to demand* from himself and the *Duty to pay* himself. Thus both Contracts or Obligations are extinguished ; and the £200 cease to exist as Economic Quantities.

2. Suppose a banker holds a merchant's acceptance for £100, which has become due : and suppose the merchant holds £100 of the banker's notes. When the banker demands payment of the merchant's acceptance, the merchant tenders him his own notes in payment : and, as before, both Obligations are extinguished.

3. Suppose two merchants have issued acceptances of equal amounts, due the same day : and that the acceptance of each merchant comes into the hands of the other. On the day of payment, each tenders to the other his own acceptance in payment of the Debt due from himself. And so both Obligations are extinguished. We shall give a very striking instance of this in the next chapter.

4. Suppose a banker holds the acceptance, or discounts the note of a customer. On the day the bill or note falls due, he simply writes off from his customer's account the amount of

the bill or note : and thus the mutual Debts are extinguished as before.

Thus we see what a prodigious extension of the system of Credit the means of extinguishing Credit by other methods than Payment in Money gives.

### *Two Branches of the System of Credit*

63. Having now developed the complete Theory of Credit, that is explained how Credits, or Debts, are created, exchanged, or sold, and extinguished, we shall in the two following chapters exhibit the actual mechanism of the great System of Credit.

The system of Credit is divided into two great branches—Commercial Credit and Banking Credit. In the first merchants buy Commodities by means of Credit or Debts payable at a certain time after date : and these Debts may circulate in commerce and effect exchanges exactly like Money, until they are paid off and extinguished. And Commercial Debts are always extinguished when they become due.

The second branch is where bankers buy these Commercial Debts by creating Credits, or Debts of their own, payable on demand. Banking Credits are created payable on demand, and must be paid if demanded. But they are not intended to be paid and extinguished. On the contrary, they are created with the hope and expectation that they will not be demanded and extinguished ; but continue in existence and do duty as Money. There is no necessity that Banking Credit should ever be extinguished. It may be transferred from one account to another in the same bank, and from one bank to another to the end of time. It is quite possible that much of the Banking Credit which exists at the present day may have been originally created by the very first banks founded in this country : and there is no necessary reason why it should not continue to the end of time. Money is a very expensive machine to purchase and keep up : but Banking Credits cost nothing to create, and they may endure for ever.

These two departments of Credit are perfectly distinct, are

governed by different principles, and are in some respects antagonistic to each other. The same person should never carry on both : that is, great bankers should not be merchants, and great merchants should not be bankers : for the duty of a banker is often contrary to the interest of a merchant.

## CHAPTER V

## ON COMMERCIAL CREDIT

1. HAVING in the preceding chapter investigated the Juridical Theory of the Creation, Transfer, and Extinction of the Merchandise, or Economic Quantities, termed **Credit** or **Debts**, we have now to exhibit their practical application in Commerce in the two following chapters. In this chapter we shall explain the mechanism of Commercial Credit; i.e. when Credit is used to transfer commodities or to produce them.

*On the System of Credit based upon simultaneous Transfers of Commodities*

2. Goods or commodities in the ordinary course of business pass through the following hands—

1. The grower or foreign importer.
2. The Manufacturer.
3. The wholesale dealer.
4. The retail dealer.
5. The Customer or Consumer.

To the first four of these persons the Goods are **Capital**, because they grow or obtain them, manufacture or deal in them, for the sake of profit: the fifth buys them for the sake of use and enjoyment. The price the ultimate consumer pays for them must evidently be sufficient to reimburse the original expenses of production.

Now, leaving out of consideration, for the present, how the importer of the goods obtained them, which concerns the foreign trade of the country, which we do not touch upon here—if he sells the goods for ready money to the wholesale Dealer, he can of course immediately import or produce a further supply of

goods in the room of those he has disposed of. In a similar way, the wholesale dealer sells to the retail dealer, and if he were paid in ready money he might immediately effect further purchases from the merchant, to supply the place of the goods he had sold. So, also, if the retail dealer were always paid in ready money by his customer, he might replace the part of his stock that was sold ; and so if everybody had always ready money at command, the stream of Circulation or Production might go on uninterruptedly, as fast as Consumption or Demand might allow.

This, however, is not the case. Few or no persons have always ready money at command for what they require. Very few traders can commence with enough ready money to pay for all their purchases ; and if the stream of Circulation, or Production, were to stop until the Consumers had paid for the goods in money, it would be vastly diminished.

Now, if the wholesale dealer sees that there is a certain demand for goods, if he has no money, and the merchant will not sell the goods to him except for ready money, he cannot purchase them—there will be no Circulation, and no Profits. But suppose that the merchant has confidence in the wholesale dealer's character and integrity, he sells the goods to the wholesale dealer on Credit ; that is, he sells him the goods, and instead of actual money he takes his Promise to pay three months after date. That is, he sells the goods in exchange for a **Credit** or a **Debt**, instead of for money. Now this case is a sale exactly as if the goods were sold for Money. The merchant cedes the property in the goods to the wholesale dealer exactly the same in the one case as in the other. Hence we see that Credit has caused exactly the same Circulation or Production as Money does. This Debt so created may be recorded in two ways. (1) Either as a simple entry, a Book Debt in the merchant's books. (2) It may be recorded in a Bill of Exchange. But it is quite clear that the Property is absolutely the same in whichever form it is ; though one form may have more conveniences than the other.

In a similar manner, the wholesale dealer may sell the goods on Credit to the Retail dealer, and the Debts may also be recorded in two different ways, either as Book Debts or as Bills

of Exchange. As in the former cases, the same Circulation or Production has been caused by Credit as by Money.

Lastly, the retail dealer may sell the goods on Credit to the Consumer, or Customer : and this debt may also be recorded in two forms, either as a Book debt, or as a Bill of Exchange. In this case the Debt most usually rests as a simple Book Debt ; it is very seldom in the form of a Bill of Exchange. But in this case, as in the preceding one, Credit has had precisely the same effect as Money in circulating goods. Hence we see that Credit has had precisely the same effect as Money in Circulating the goods from the merchant to the Customer.

Moreover, at each transfer of the goods from one holder to another, it has been necessary to create a fresh Debt ; thereby exemplifying the distinction we have already pointed out between **Credit** and **Bills of Lading** ; because if the goods had passed through so many transfers, the same Bill of Lading would always have accompanied them.

Now, the Debt for which the Merchant sold the goods to the wholesale dealer, is no doubt valuable Property to him, because he knows it will be paid in time. Similarly, the Debts for which the other parties sold the goods are also valuable Property to them. Credit, even so far as this, would be of great assistance to Production ; and the vast amount of it generated in this way would be valuable Property to its Owners. But in this state it would be of no further use to its owners. It might, therefore, be aptly compared to so much dead stock.

3. It appears from Sir Francis Child, that before the institution of Banks in this country commercial bills were not transferable ; as it was supposed that it was contrary to the Common Law. He was very desirous of introducing the Dutch custom ; when every person who bought goods on Credit was obliged to give a Note of hand, which the seller of the goods could put into circulation like so much money, and make use of in further purchases.

The next step, therefore, is to make this dead stock negotiable or exchangeable ; i.e. to make the Debts themselves saleable commodities ; to sell them either for ready money, or for other Debts of more convenient amount and immediately ex-



changeable for money on Demand, and therefore equivalent to money.

There are two classes of traders whose especial business is to buy these commercial Debts, and so to give activity and circulation to this enormous mass of valuable Property, and convert it from dead stock into further Productive Power.

The first class of these traders are called **Bill Discounters** ; i.e. buyers of Debts ; they buy these debts with money. The second class are called **Bankers** ; they buy these commercial Debts by creating other Debts payable on demand.

The general practice of selling these Commercial Debts seems to have arisen when the London goldsmiths began the trade of banking. Having large sums deposited with them, for which they agreed to pay interest, they were obliged to trade with them to obtain the profit out of which they had to pay the interest.

The merchant having drawn a Bill on the wholesale dealer sells it to the banker, and receives in exchange for it a Credit termed a **Deposit** payable on demand, which has all the advantages of ready money. Thus, the banker buys one Debt, which is a valuable Property, by creating another Debt, which is also valuable Property ; and it must be carefully observed that is not a cancelment of Debts, as many suppose, but an **Exchange** of valuable Properties.

In a similar way the other parties, manufacturers and whole sale dealers, have Debts which they also sell to their bankers for Credit, or Deposits, payable on demand, and thus the whole mass of commercial Debts is converted into Productive Capital. The different parties have now the full command of ready money for any purposes they require ; and can continue the stream of production without interruption ; and as their bills fall due they have only to give an order on their banker.

#### *Credit used by Foreign Merchants*

4. The supposed non-alienability of debts in English Common Law impeded the circulation of Bills in this country for a long time ; but there was no such restraint on the Continent, where Debts were as saleable as any other property.

This was strikingly exhibited on the Continent before Banks undertook the discounting of Mercantile Bills; and the power of Credit, or Purchasing Power, independent of, and over and above money, was strikingly exemplified.

At several great centres of Commerce, Antwerp, Lyons, Brussels, and many others, there were held great fairs at certain periods. The Continental merchants, instead of making their bills payable at their own houses, where they must have kept cash to meet them, made them payable only at these fairs. In the meantime their bills circulated throughout the country like money, and got covered with indorsements. On a certain day of the fair the merchants met and adjusted their mutual claims, and if their claims were equal, they were of course balanced and paid by being exchanged against one another, by the principle of *Compensation*. By this means an enormous Commerce was carried on without any specie. Boisguillebert, one of the morning stars of modern Economic Science, says that at the fair of Lyons, transactions to the amount of 80,000,000 were settled without the use of a single coin.

#### *Exaggerated Ideas of the Security of Real Bills*

5. The above are the fewest number of hands that goods in the ordinary course of business pass through, and it is clear that on their passage from the manufacturer or importer to the customer, they will give rise to at least two bills, if not to three. They are all regular business bills; they originate from real transactions; they are what are called **Real** or **Value** Bills, and they are what arise out of the regular and legitimate course of business, and they are the great staple of what bankers purchase. It is a very prevalent opinion even among men of business that Real bills are essentially safe, because they are based upon real transactions, and always *represent* property. But the foregoing considerations will dispel much of the security supposed to reside in real bills on that account; because we have seen that in the most legitimate course of business, there will generally be two bills afloat originating out of the transfers of any given goods, so that in the ordinary way there will be at least twice as many bills afloat as there are goods to which they refer.

The above operations are only what arise in the ordinary course of business ; sometimes, however, goods may change hands much more frequently, and at every transfer a bill may be created. In times of speculation transfers are often much more numerous, and all the bills created on these transfers are technically Real bills, but it is evidently a delusion to suppose that there is any security in them on that account. The whole misconception arises from an error in the meaning of the word '*represent.*' A Bill of Lading does, as we have said above, *represent* goods ; and whoever has the Bill of Lading has the Property in some specified goods. But a Bill of Exchange does not **represent** any goods at all. It represents nothing but **Debt** ; not even any specified money. It is created as a substitute for money to transfer goods, but it does not represent the goods any more than Money represents goods. This was long ago pointed out by Thornton in his *Essay on Paper Credit*. "In order to justify the supposition that a real bill, as it is called, represents actual property, there ought to be some power in the bill holder to prevent the property which the bill represents from being turned to other purposes than that of paying the bill in question. No such power exists ; neither the man who holds the bill nor the man who discounts it has any property in the specific goods for which it was given." This is perfectly manifest ; it is contrary both to the law and nature of Bills that they should be tied down to any specific goods. The real security of the Bill consists in the general ability of the parties to meet their engagements, and not in any specific goods it is supposed to represent.

#### *On Accommodation Bills*

6. In the case we examined of a bank buying the bill of A upon B, the transaction was already effected upon which it was founded. A had sold the goods to B for which he was entitled to be paid on a future day, before he drew the bill on him ; and originally all bills of Exchange represented previously existing Debts, and they bore on their face the words "for value received" to testify the fact. Consequently, when A discounts the bill, founded upon that transaction with the bank, it must be carefully observed that he is simply selling a Debt which is

his existing property. And so long as Bills of Exchange are restricted to representing *past* transactions, their negotiation is not borrowing money as is commonly understood. But the sharpness of traders discovered that they might be applied to *future* transactions.

In the case of a past transaction, A simply sells his debt to the bank and obtains the money to which he is entitled, and B pays to the bank the money he would have otherwise paid to A, at the expiration of the Credit. But B may lend his name to A without any real transaction having taken place between them. Then, if B accepts a bill to A, A may discount that bill with the bank, and with the proceeds he may purchase goods, sell them to C and take C's bill in payment of them, which would then be a real transaction. Now, this not being based on any previous transaction, is in itself a completely new transaction, and such a Bill is called an **Accommodation Bill**.

The practical effect of this transaction is that B stands security to the Bank for the money advanced to A; and there is nothing in the nature of such a transaction worse than for one man to stand security for another in any commercial transaction. A great deal has been said and written about the difference between Real and Accommodation Bills; and while no terms of admiration are too strong for the first, no terms of vituperation are too severe for the latter. Thus Mr. Bell says—"The difference between a genuine commercial bill and an accommodation bill is something similar to the difference between a genuine coin and a counterfeit one,"—as if the fact of negotiating an Accommodation Bill were in itself one of moral turpitude. It is also generally assumed that Real Bills possess some sort of additional security because it is supposed that there is property to represent them. We have already pointed out the error of this idea. In fact, both Real and Accommodation Bills have exactly the same degree of security—they constitute a general charge upon the whole estate of the obligants upon them. The objection to Accommodation Bills, therefore, on this ground is futile.

The essential distinction between Real and Accommodation Bills, is that one represents *past*, and the other *future* transactions. In a Real bill goods *have been* purchased which are

to meet the bill : in an Accommodation bill goods *are to be* purchased which are to meet the bill. But this is no ground for preference of one over the other. A transaction which *has been done* may be just as wild, foolish, and absurd as one that *has to be done*. The intention of engaging in any mercantile transaction is that the result should repay the outlay with profit. There is no other test of its propriety but this in a mercantile sense.

The common objections against Accommodation Bills are futile and wide of the mark. Whether a Bill be a good and a safe one, has no reference to whether it represents a *Past* or a *Future* transaction, but whether it be a safe and judicious one in itself, and the parties to it respectable and of sufficient means to meet their liabilities.

The true objections to Accommodation Paper are of a different nature. As Real Bills only arise out of the transfers of property, the number of them must be limited in the very nature of things. However bad and worthless they may be individually, they cannot be multiplied beyond a certain extent. There is therefore a limit to the calamities they cause. But Accommodation Bills are means devised to extract funds from bankers to speculate with ; and consequently these speculations may be continued as long as these funds can be extracted.

This system of Accommodation Paper of different descriptions is one of immense importance in modern commerce, and has produced great calamities, which are so intimately interwoven with banking, that we shall defer further consideration of it till the next chapter, which treats of the operations of Banking.

#### *Distinction between Bills of Exchange and Bills of Lading*

7. The distinction between Bills of Exchange which are **Credit**, and Bills of Lading which are **Documents of Title**, is of so subtle a nature, and of such momentous consequence, that it will be well to illustrate it further. It has been seen that any amount of Property may, by repeated transfers, give rise to any number of Bills of Exchange, which are all *bond fide* ; just for the same reason that every transfer would require a quantity of Money equal to the Property to transfer it. Even supposing

that the price remained the same at each transfer, it would require 20 times £20 to circulate goods to the value of £20 twenty times. But also £20 by twenty transfers may circulate goods to the value of 20 times £20. So a Bill of Exchange may represent the transfers of many times the value of goods expressed on its face. This is the case whenever a Bill is indorsed or passed away for value: and the bill represents as many additional values expressed on the face of it as there are Indorsements.

Thus, suppose a real transaction between A and B: A draws upon B: that represents *one* transaction, or transfer of goods. A then buys something from C: and in payment of these goods C might draw upon A: in a similar way as A drew upon B. But instead of this A may pay for the goods bought from C by selling to him the Bill he drew upon B: at the same time indorsing it. The Bill has now effected *two* transfers of goods. In a similar way C may buy goods from D, and pay for them by indorsing over the Bill he received from A. The bill has then two indorsements and represents *three* transfers of goods. In a similar way it may pass through any number of hands and effect any number of exchanges. When C indorsed over the bill to D, he merely sold him the Debt which A had previously sold to him. Now that might be done either by drawing a fresh bill on B, cancelling the first, or simply indorsing over the bill he received from A. Hence every indorsement is equivalent to a fresh drawing. But if he draws a fresh bill on B, it will represent nothing but B's debt to him: whereas if he indorses over the bill he received from A, it will represent B's debt to A; A's debt to C; and C's debt to D: and consequently it will be much more desirable for D to receive a bill which represents the sum of many previous transactions, and for the payment of which so many parties are bound to the whole extent of their estates. About sixty years ago the Circulating Medium of Lancashire consisted almost exclusively of Bills of Exchange, which had sometimes as many as 150 indorsements on them before they came to maturity.

This also shows that no true estimate of the effect of bills in circulation can be formed from the returns to the Stamp Office, as has sometimes been attempted to be done, as every indorse-

ment is in effect a new bill. So that the useful effect of a bill is indicated by the number of indorsements on it, supposing that every transfer is accompanied by an indorsement, which is not always the case.

But indorsements on a Bill of Lading have a different meaning: because a Bill of Lading is bound down to the goods, and accompanies them however many the transfers may be. Hence ten indorsements on a Bill of Lading denote that the *same* goods have been transferred *ten* times: ten indorsements on a Bill of Exchange denote that *eleven* times the amount of goods have been transferred *once*.

*On Credit created for the purpose of being applied to the  
Formation of New Products*

3. The operations of Credit we have considered were for the purpose of transferring commodities either which had been purchased, or which were to be purchased: but which might be supposed to be already in existence.

But since Credit is, as we have seen, Exchangeable Property, and a substitute for Money, it is clear that it may be applied equally as well as Money to bring *new* products into existence. The limits of Credit in this case are exactly the same as in the former case—namely, the power of the proceeds of the work to redeem the Credit.

As an example of such a creation or formation of a product, we may take such a case as this:—

Suppose that the Corporation of a town wishes to build a Market place, but has not the ready cash to buy the materials, and pay the builder's and workmen's wages. It may be a matter of certainty that if the Market place were once built, the stalls in it would be taken up, and the rents received would liquidate the Debt incurred in erecting it. But as the workmen cannot wait until that time, but require immediate cash to purchase necessaries, it is clear that unless there is some method of providing ready payment, they cannot be employed. In such a case they might borrow money on their own bonds, repayable at a future period. These bonds would be the creation of Property. They are the Right to demand a future payment: and

are valuable exchangeable Property, which may be bought and sold like anything else.

But the Corporation need not borrow money. They might create their own Obligations, payable after a certain time, small enough to be received in payment of wages, and be readily received by the dealers in the town, and perform all the functions of a Currency, and be equivalent to Money. They would be equally efficacious in *producing* or forming the Market hall as so much Money. And the Market hall itself would be Capital, because it would produce a profit. As the stalls were let and the rents received for them, the bonds might be redeemed, and the Debt cleared off. It is said that several Market halls have been built by adopting this plan.

Credit, in fact, being Purchasing Power, may be used to purchase Labour as well as commodities: and that Labour may be employed in *forming* or producing things as well as in *circulating* them.

In the next chapter we shall show that Companies have been formed on the Continent for the express purpose of promoting improvements in agriculture on this principle, and have been the main cause of the prosperity of these countries.

But where institutions are very solid and enjoy high Credit, they may issue Notes payable on demand for the express purpose of such operations. The immense improvements in agriculture and all public works in Scotland have been effected by the Scotch Banks issuing £1 notes: and such is their solidity that their £1 notes are as readily received in Scotland as money, and produce exactly the same effects as so much money.

In all cases whatever **Credit** is merely the **Present Value of the future payment**, and if it is profitable to advance Money for any operation to be replaced with a profit by the result of the operation, it is of course equally profitable to create an equal amount of Credit, which will be redeemed with a profit by the result of the operation.

Thus Money and Credit have exactly the same effects on the Production of commodities which by the unanimous consent of Economists includes both their formation and their transfer: and therefore **Credit is Productive Capital** exactly in the same way and in the same sense as Money is.



## CHAPTER VI

## THE THEORY OF BANKING

*On the Meaning of the words Bank and Banker*

1. WE have now to explain the mechanism of the second great department of the System of Credit—the business of Banking. But, as great misconception prevails as to the meaning of the words **Bank** and **Banker**, it is essentially necessary to clear it away.

*On the Meaning of Bank*

2. It has often been said in recent times that the word **Bank** is derived from the Italian word *Banco*, a bench, because it is alleged that the Italian money-dealers or money-changers kept a bench on which their money was piled : whence they are said to have been called *Banchieri*.

This, however, is a complete error : for the Italian money-changers were never called *Banchieri* as such in the middle ages. They were called *Cambiatores*, *Campsores*, *Speciarii*, *Argentarii*, *Nummularii*, *Trapezitæ*, *Danistæ*, *Collybistæ*, and *Mutuatores*, but never *Banchieri* : and their places of business were not called *banchi*, but *Casane*.

The true origin of the word **Bank** is this. In the year 1171 the City of Venice was at war both with the Empires of the East and the West. Its finances were in great disorder, and the great Council levied a forced loan of 1 per cent. on the property of all their citizens, and promised them interest at 5 per cent. Commissioners were appointed to manage the loan, who were called *Camera degli Imprestiti*. Such a loan has several names in Italian, such as *Compera*, *Mutuo*, but the most usual is *Monte*, a joint-stock fund. This first loan was called the *Monte Vecchio* ; subsequently two other loans were

contracted called *Monte Nuovo*, and *Monte Nuovissimo*. In exchange for the money contributed by the citizens, they received **Stock Certificates**, or **Credits**, which they might transfer to any one else : and the Commissioners kept an office for the transfer of the stock and the payments of the dividends.

At this time the Germans were masters of a great part of Italy, and the German word **Banck** came to be used as synonymous with the Italian word **Monte** : and was Italianised into **Banco** : and the loans or public debts were called indifferently **Monti** or **Banchi**.

Thus Muratori, after noticing the absurd derivation of *banco* from *abacus*, says—‘To me, on the contrary, the word seems to have come from the German word **Banck**, which is a very ancient word in that language,’ and he says that *banco* was first used as a store in the town of Brescia.

So also Ducange says—‘Bank is therefore of Franco-German or Saxon origin, no other is to be sought for.’

So a recent Italian writer, Cibrario, says—‘Regarding the Theory of Credit which I have said was invented by the Italian cities, it is known that the first **Bank** or **Public Debt** (il primo **Banco** o **Debito Pubblico**) was erected at Venice in 1171. In the 13th century paper money is mentioned at Milan : the credit was paid off. A **Monte** or **Public Debt** (un **Monte** o **Debito Pubblico**) was founded at Florence in 1336 . . . .

‘At Genoa during the wars of the fourteenth century the **Bank** of St. George was established, formed of the Creditors of the State.’

So in Florian and Torriani’s Italian Dictionary, 1659, it is said—‘**Monte**, a standing **Bank** or **Mount** of money, as they have in divers cities of Italy.’

Thus **Monte** and **Banco** mean a Heap or Mound, and thus denoted a common or joint-stock fund, formed by the contributions of a number of persons.

3. And this was the meaning of the word when it was first introduced into English.

Thus Bacon says—‘Let it be no **Bank** or **Common Stock**, but every man be master of his own money.’

So Gerard Malynes, in 1622, speaks of **Mons Pietatis** or

**Banke of Charity** ; and says that in Italy there 'are **Montes Pietatis**, that is, **Mounts** or **Bankes of Charity**.'

So Benbrige, in 1646, speaks of the 'Three **Bankes** of Venice,' meaning the three public loans. Also—'In their rescue may be collected **Mons Pietatis** sive *Charitatis*, or **Banke of Piety** or *Charity*, as they of Trent fitly call it.' Again—'For borrowers in trade, for their supply as their occasions shall require, may be erected **Mons Negotiationis**, or **Banke of Trade**.' He also quotes from Tolet, who speaks of two kinds of Banks, namely, **Mons Fidei**, or **Banke of Truste**, which Clement XII. instituted at Rome : he that put his money into this Banke was never to take it out again, and received 7 per cent. : and of **Mons Recuperationis**, or **Banke of Recovery**, of which the interest was 12 per cent. These were simply perpetual and terminable annuities, where the higher interest of the latter was in fact repayment of the principal.

So Samuel Lambe, a London merchant, advocating the formation of a Bank in 1658, says—'A Bank is a certain number of sufficient men of estates and credit joined together in Joint Stock, being as it were the general cash-keepers of that place where they are settled ; letting out *imaginary money* (i.e. **Credit**) at interest at 2½ or 3 per cent. : to tradesmen and others that agree with them for the same : and *making payments thereof by assignation*, and passing each man's account from one to another, with much facility and ease.'

So Blackstone says—'At Florence, in 1344, Government owed £60,000, and being unable to pay it, formed the principal into an aggregate sum called metaphorically a **Mount** or **Bank**.'

So the Bank of England was formed of a company or association of persons who advanced a sum of money to Government, and received in exchange for it a perpetual Annuity : a Right to a series of payments for ever from the State. This Annuity is in popular language called the Funds, but the legal name is 'Consolidated **Bank** Annuities.'

There has only been one instance in this country of a 'Bank' which did not receive deposits in cash. Soon after the foundation of the Bank of England, a company of persons united to advance a million to Government. They were incorporated

under the title of the 'Million Bank.' It continued till nearly the end of the last century.

Now, the essential feature of all these **Banks** was this : the subscribers advanced the money as a loan or **Mutuum** : and thus it became the absolute property of the borrowers : and in exchange for their money they received a Credit : i.e. certificate or Promise to pay interest : and the very essence of 'banking' is to receive money as a Mutuum, and give in exchange for it Credits, or Debts, or Promises to pay.

#### *On the Meaning of Banker*

4. Great misconception also prevails as to the meaning of **Banker**, and the nature of Banking business.

It is popularly supposed that 'a banker is a dealer in capital, or more properly a dealer in money. He is an intermediate party between the borrower and the lender. He borrows of one party and lends to another, and the difference between the terms at which he borrows and those at which he lends forms the source of his profit.'

So a Committee of the House of Commons says—'The use of money, and that only, they regard as the province of a Bank, whether of a private person or the banking department of the Bank of England.'

These extracts show a profound misconception of the nature of the business of Banking.

In former times there were many persons who acted as intermediaries between persons who wanted to lend and persons who wanted to borrow. They were called Money Scriveners. The father of John Milton was a money scrivener. But no one ever called a money scrivener a banker.

At the present day a firm of Solicitors may have some clients who wish to lend, and other clients who wish to borrow. The first set may entrust their money to the firm to lend to the second set. Thus they act as intermediaries between persons who wish to lend and those who want to borrow : and they receive a commission on the sums which pass through their hands. But no one ever called a firm of solicitors who transact such business '**bankers**,' which shows that there must be an

essential difference between such business and the business of banking.

A firm of solicitors who transact such business do not acquire any Property in the money which passes through their hands. They merely receive it as a **Depositum** or **Bailment** : and they are only custodians or Trustees of the money : and it is only entrusted to their custody for the express purpose of being applied in a certain way. The actual property in the money passes directly from the lender to the borrower, through the medium of the Trustees or Bailees : and if the latter appropriated it in any way to their own purposes, they would be liable to be punished for embezzlement.

But the essential feature of a '**Banker**' is that when his customers pay in money to their accounts they cede the Property in the money to the banker. The money placed with him is not a **Depositum** but a **Mutuum** : or Sale of the money to the banker. He buys the money, and gives in exchange for it a Credit in his books, which the customer may transfer to anyone else he pleases, or he may demand payment of it.

Thus Galiani says—'The first Banks were in the hands of private persons with whom persons deposited money, and from whom they received Bills of Credit (*fedi di Credito*), and who were governed by the same rules as the public banks now are. And thus the Italians have been not only the fathers and the masters, and the arbiters of commerce, so that in all Europe they have been the depositaries of money, and are called **Bankers**.'

So Genovesi says—'These Monti were at first administered with scrupulous fidelity, as are all human institutions made in the heat of virtue. From which it came to pass that many placed their money on deposit, and as a Security received paper which was called and is still called Bills of Credit. Thus private banks were established among us whose Bills of Credit acquired a great circulation, and increased the quantity of signs, and the velocity of commerce.'

And this was always regarded as the essential feature of '**Banking**.' Thus Marquardus says—'And by "**Banking**" is meant a certain species of trading in money, under the sanction of public authority, in which money is placed with bankers

(who are also cashiers and depositaries of money) for the security of creditors, and the convenience of debtors in such a way that *the Property in the money passes to them* : but always with the condition understood that any one who places his money with them may have it back whenever he pleases.'

It is of such importance to fix clearly on the student's mind the true relation between banker and customer that we may quote the words of Lord Chancellor Cottenham—' Money when paid into a bank ceases altogether to be the money of the principal : it is the money of the banker, who is bound to return an equivalent by paying a similar sum to that deposited with him, when he is called for it. The money paid into the banker's is money known by the principal to be placed there for the purpose of being under the control of the banker. It is then the banker's money : he is known to deal with it as his own : he makes what profit of it he can : which profit he retains to himself, paying back only the principal according to the custom of bankers in some places : or the principal and a small rate of interest according to the custom of bankers in other places. The money placed in the custody of a banker is to all intents and purposes the money of the banker to do with as he pleases: he is guilty of no breach of trust in employing it : he is not answerable to the principal if he puts it in jeopardy if he engages in hazardous speculation.'

A '**Banker**,' therefore, always buys money with his own Credit: and, moreover, when he buys Commercial Debts he always does it with his own Credit also : and experience shows that his Credit may exceed the cash in his possession several times. Thus the business of a '**banker**' is essentially to **create Credit**.

The following is the true definition of a '**Banker** :'

*A **Banker** is a trader whose business is to buy Money and Debts by creating other Debts.*

As will be exemplified more fully in a subsequent section.

#### *On the Currency Principle*

5. We must now explain the meaning of an expression which has been frequently used in recent discussions, and which must be clearly understood before we come to the exposition of

the system which the Bank Charter Act of 1844 is designed to carry out.

The express function and purpose of a Bank being to create Credit, it has been sometimes asserted that a Bank should only be allowed to create exactly as much Credit as the specie paid in, and no more. And that its sole function should be to exchange Credit for Money and Money for Credit : and thus the quantity of Credit would always be exactly equal to the Money it displaces.

This doctrine is that which is distinctively known by the name of the **Currency Principle** : it is the doctrine which the supporters of the Bank Charter Act of 1844 asserted to be the only true one : and which that Act was intended to carry out.

This doctrine was first clearly formulated in China in 1309 : That country had been plagued with excessive issues of inconvertible paper for nearly 500 years. The author of a work Tsao-min exhibiting the evil consequences of excessive issues of Paper Money, and speaking of the times before such mischiefs took place, said—' Then it was ordered that at the offices of the rich merchants who managed the enterprise, when the Notes were paid in the Money came out : when the Bills came out the Money went in : the Money was the mother, the Note was the son. The son and the mother were reciprocally exchanged for each other.'

Several Banks have been constructed on this principle : such as those of Venice, Amsterdam, Hamburg, Nuremberg, and others.

These places, small in themselves, were the centres of a great foreign commerce : and as a necessary consequence large quantities of foreign coin of all sorts of different countries and denominations were brought by foreigners who resorted to them. These coins were moreover greatly clipped, worn, and diminished : This degraded state of the current coins produced intolerable inconvenience, disorder, and confusion among merchants, who, when they paid or received payment of their bills, had to offer or receive a bagful of all sorts of different coins. The settlement of these bills, therefore, involved perpetual disputes—which coins were to be received and which were not, and how much each was to count for. In order to remedy this

intolerable inconvenience, it became necessary to institute some fixed and uniform standard of payment, so as to insure regularity and a just discharge of debts. In order to effect this the Magistrates of these cities instituted a Bank of Deposit, in which every merchant placed his coins of different kinds and nations. These were all weighed and the Bank gave him a Credit in its books for the exact Value of the Bullion deposited. The owner of the Credit was entitled to have it paid in full weighted coin on demand. These Credits, therefore, insured a uniform standard of payment and were called **Bank Money** : and it was enacted that all Bills upon these respective cities above a certain amount should be paid in Bank Money only. As this Bank Credit, or Bank Money, was always exchangeable for coin of full weight on demand, it was always at a premium or *agio* as compared with the worn, clipped, and degraded coin in circulation. The difference was usually from 5 to 9 per cent. in the different cities. The term *agio* or premium is misleading : because it is clear that the Bank Money was the true standard, and the current coin was at a discount. These Banks professed to keep all the coin and bullion deposited with them in their vaults. They made no use of it in the way of business, as by discounting bills. Thus the Credit created was exactly equal to the specie deposited : and their sole function was to exchange Specie for Credit, and Credit for Specie.

These Banks were examples of the **Currency Principle**. They were of no further use to commerce than that they served as a safe place to keep the merchants' money in : and that they insured a uniform standard of payment of debts. They made no profits by their business : and no Bank constructed on the Currency Principle ever did, or ever could by any possibility make profits by business. The merchants who kept their accounts with them paid certain fees to defray the expenses of the establishment.

This Currency Principle is not only advocated as the sound one by many influential writers, especially those to whom the Bank Charter Act of 1844 is due, but Mill goes further : he says—

‘Further consideration showed that the uses of money are in no respect promoted by increasing the quantity which exists



and circulates in a country, the service which it performs being as well rendered by a small as by a large aggregate amount. . . .

‘Another of the fallacies from which the advocates of an inconvertible currency derive support is the notion that *an increase of the currency quickens industry*. This idea was set afloat by Hume, in his essay on money, and has had many devoted adherents since. . . .

‘The substitution of Paper for Metallic Currency is a national gain, **any further increase of paper beyond this is but a form of robbery.**

‘An issue of notes is a manifest gain to the issuers, who, until the notes are returned for payment, obtain the use of them as if they were real capital : and *so long as the notes are no permanent addition to the currency*, but merely supersede gold and silver to the same amount, the gain to the issuer is a loss to no one : it is obtained by saving the community the expense of the more costly material. *But if there is no gold and silver to be superseded—if the notes are added to the currency, instead of being substituted for the metallic part of it*—all holders of currency lose by the depreciation of its value the exact equivalent of what the issuer gains. . . .

‘When metallic money has been entirely superseded and expelled from circulation by the substitution of an equal amount of bank notes, *any attempt to keep a still further quantity of paper in circulation must, if the notes be convertible, be a complete failure*. The new issue would again set in motion the same train of consequences by which the gold coin had already been expelled. The metals would, as before, be required for exportation, and would be for that purpose demanded from the banks to the full extent of the superfluous notes, which thus could not possibly be retained in circulation.’

We shall now proceed to give an exposition of the actual mechanism of banking, and the student will see how far these assertions are borne out by the facts.

#### *On the Mechanism of Banking*

6. Banks of the nature of those of Venice, Amsterdam, and Hamburg never existed in this country, and we must now explain the mechanism of the great system of Banking, or the

great system of the commerce in Debts, Credits, or *Choses-in-action*, as it has been carried on in this country.

It was during the great civil war, as we have explained elsewhere, that the goldsmiths of London first began to receive the cash of the merchants and country gentlemen for safe custody, on condition of repaying an equal sum on demand.

Now this money was not placed in their hands to be locked away idle in their cellars, as plate and jewelry are often given to the care of a banker as a **Depositum**, and to be restored *in specie*. The Money was sold to the banker as a **Mutuum**, to be restored only *in genere*. And they agreed not only to repay it on demand, but to pay 6 per cent. interest for it: consequently they were obliged to trade with it in order to make a profit.

We must now explain how a Banker trades with money.

Suppose his customers pay in £10,000 to their accounts: then the Money becomes the banker's absolute property as a **Mutuum**. In fact, he **Buys** the money from his customers, and in exchange for it he gives them a Credit in his books: that is, he creates a Right of action against himself for an equal amount. This Right of action, Credit, or Debt, in Banking language is termed a **Deposit**.

After such an operation his accounts would stand thus—

Liabilities.		Assets.
Deposits . . .	£10,000	Cash . . .
		£10,000

Now, though his customers have Rights of action against the banker to demand back exactly an equal quantity of money as they have paid in, yet persons would not place money with their bankers if they meant to draw it out again immediately: just as no one would spend at once all the money he had. Nevertheless, some will want to draw out part of their funds: but if some customers want to draw out money, others will probably pay in about an equal sum. It may be said that in ordinary and quiet times a banker's balance in cash will seldom differ by more than one thirty-sixth part from day to day. So that if he retains *one tenth* of his cash to meet any demands which may be made upon him, that is ample and abundant in all ordinary times.

If then, in the above example, the banker retains £1,000 in cash, he has £9,000 to trade with: and it is just in the method in which bankers trade that so much misconception exists.

It is commonly supposed that when a banker has the £9,000 to trade with he employs it in purchasing bills, and so receives a profit only on the £9,000. But that is a complete misconception of the nature of 'banking.'

The way that a 'banker' trades is this.—He sees that £1,000 in cash is sufficient to bear liabilities of £10,000 in Credit: consequently he argues that £10,000 in cash will bear liabilities to several times that amount in Credit.

Good commercial bills are the most eligible investment of a banker: he then buys perhaps £40,000 of commercial bills: and he buys those bills exactly in the same way as he bought the Cash, *i.e.* by creating Credits or Debts, or Rights of action against himself, in his books, to the amount of the bills, deducting at the same time the Interest or Profit agreed upon, which is then called **Discount**.

The Credit, or Right of action against himself, and placed to the accounts of the customers, is equally termed a **Deposit** as the Credit created in exchange for the Cash. Supposing that the Rate of Interest or Profit agreed upon was 4 per cent. per annum, and the bills were at three months, the sum to be retained, or the Discount, would be £400. Consequently, in exchange for Bills to the amount of £40,000 he would create Credits or Deposits against himself to the amount of £39,600.

Hence, just after buying these bills his accounts would stand thus—

Liabilities.		Assets.
Deposits . . . . .	£49,600	Cash . . . . . £10,000
		Bills of Exchange . . . . . 40,000
	£49,600	£50,000

By this process the 'Banker' has added £39,600 in Credit to the previously existing cash: and his profit is clear: he gains 4 per cent. on the £40,000.

Now this is essentially what the business of 'Banking' consists in: and hence the correctness of the definition of a 'banker' given above is manifest.

*'A Banker is a trader whose business consists in **Buying Money and Debts by Creating other Debts.**'*

Thus we see that the distinctive and essential feature of a Bank and a Banker is to create and issue Credit payable on demand : and this Credit may be put into circulation and serve all the purposes of Money.

#### *On a Common Error respecting Deposits*

7. The student must be carefully on his guard against a widely prevalent error respecting the nature of **Deposits**. It is very common to speak of the Deposits in a bank as the cash deposited in the Bank. This is the first error : as the cash deposited is not a **Depositum** but a **Mutuum** : which we have already seen are essentially distinct. In the next place, it is not the cash in a bank which is, in banking language, the **Deposit** ; but the **Credit** or Right of action *created in exchange for the cash*. The Money or the Bill of Exchange actually deposited or sold to the banker is an **Asset**. Hence the **Deposits** are the **Liabilities**, or the **Price** which the Bank pays for the **Assets**.

It is very usual among ill-informed writers to consider the Deposits in a bank to be the Cash deposited in it for it to trade with or to 'lend out,' as it is erroneously called. Every half-year it is usual to see summaries in the papers showing that the Joint Stock Banks have perhaps £200,000,000 of 'Deposits,' and it is supposed that they have that quantity of money to trade with. But it is a complete and entire delusion. These 200 millions of '**Deposits**' are not Deposits in cash at all : they are mere **Credit** : and are exactly equivalent to so many **Bank Notes**. They are nothing but an enormous superstructure of **Credit** reared up on a comparatively small basis of bullion, exactly like the Issues of Notes. These figures do not show the quantity of cash at the command of the banks to trade with : but they show the quantity of business *they have done*, and the liabilities they have created. These apparent Deposits, then, which so many writers think are Cash, are nothing but the **Credit** or the **Rights of action** the Bank has created as the **Price** with which they have purchased the Cash and Bills, which figure on the other side as **Assets**.

After a great commercial crisis it is universally observed that the Deposits diminish : and it is supposed that persons draw their money out of banks. But such assertions are erroneous. There is as much actual money in banks at these times, probably more, than in quiet times. But the diminution in Deposits arises from the fact that in times of commercial depression there are fewer bills created through the operations of commerce : consequently there are fewer bills for the banks to purchase : and if they have no bills to buy they do not create Deposits : *it is not a diminution of deposits in cash : but a Contraction of Credit.*

*In Banking Language a **Deposit** and an **Issue** are the same*

**S.** The student must therefore carefully observe that, in the language of banking, a **Deposit** and an **Issue** are the same thing. A Deposit is simply a Credit in a banker's book giving the customer a Right of action against him for a sum of money. And as soon as the banker has created a Credit or Deposit in his book in favour of his customer, he has **Issued** a Right of action against himself. The word Issue comes from *Exitus*, a going forth : and in Mercantile Law to **Issue** an instrument is to deliver it to any one so as to give him a Right of action against the deliverer.

It in no way increases the banker's liability to write the liability down on paper. Such is only done for the convenience of transferring the Right of action to some one else. When the Credit remains in the simple form of a Deposit, the banker knows who his Creditor is : when he gives the Promissory Note, and his Creditor transfers it to some one else, the banker has no means of knowing who his Creditor is. The same thing, however, may happen in the case of a Deposit : because the Creditor may transfer his Right of action by means of a Cheque to any one else : and it may circulate exactly like a Bank Note. Hence the banker may be equally ignorant who his real Creditor is in one case as the other.

It is therefore a fundamental error to divide Banks into 'Banks of **Deposit**' and 'Banks of **Issue**.' All Banks are 'Banks of **Issue**.' The only distinction is whether the Credit they create is strictly confined to the Money they buy with it .

or whether they are allowed to create Credit in excess of the Cash they hold, in order to buy Bills of Exchange with them, and so make a profit by so doing.

Whether the Credit they create is recorded on paper or not in no way alters the amount of their liabilities.

#### *On the Method of Utilising Banking Credits*

9. The Banker then having **Issued** these Credits, Deposits, or Rights of action against himself to his customers, they of course cannot transfer them to any one else by manual delivery. In order to be capable of manual delivery, they must be recorded on paper : and this might be done in two forms—

1. The banker might give him his own note promising to pay a certain sum to the customer or to ‘bearer.’

2. The customer might write a note to the banker desiring him to pay the money to some particular person ; or to his order or to bearer. These orders were formerly called Cash Notes : they are now called **Cheques**.

These Paper documents neither create nor extinguish liabilities : they merely record them on paper for the purpose of transferring them to some one else.

Bankers’ notes were at first merely written on paper like any other Promissory Notes : and they were for any sums. In 1729 Child & Co. introduced the practice of having their Notes partly printed and partly written like a modern cheque. But still they were not like modern bank notes for even pounds : but just for any odd sums that might be required, like a cheque.

London bankers appear to have issued their own notes till about 1793 : when perhaps the panic of that year may have shown them the danger of having their notes in the hands of the public : and it seems that they discontinued issuing them about that time. But they were never forbidden to issue notes till the Bank Charter Act of 1844.

#### *Operations by means of Cheques*

10. In modern times a customer can only operate on his account by means of Cheques : and when he does so the following different results may take place—

1. He may draw out the actual money : if he does so, the

banker's liability is extinguished : it is a resale of the money to the customer : and the banker buys up the Right of action against himself.

2. The Cheque may circulate in commerce and effect any number of payments exactly like money : and it may ultimately be paid into the account of another customer of the same bank: and the series of transactions finally closed by the mere transfer of Credit from one account to another.

3. The Cheque may, after performing a similar number of exchanges as in the preceding case, fall into the hands of the customer of another bank, and be paid into that bank. And so the banker becomes the debtor of another bank. But if the Bank A is bound to pay the Bank B so much money, the chances are that the Bank B will be bound to pay the Bank A about an equal amount. If the mutual claims of the Banks are exactly equal, the respective orders are interchanged, and the Credits readjusted to the accounts of the different customers without any payment in money. If the mutual claims did not exactly balance, it used to be necessary to pay the differences only in cash. Thus, however many banks there might be, if their mutual claims exactly balanced, any amount of business might be carried on without requiring a single coin.

#### *Error of the Common Description of Banking*

11. From the preceding account of the actual mechanism of banking, it will be seen what a complete misconception it is of the nature of Banking to say that bankers are merely agents or intermediaries between persons who wish to lend and persons who wish to borrow. This is entirely untrue in the ordinary sense of 'lending' and 'borrowing : ' because in the ordinary case of 'lending' the lender deprives himself of the use of the thing lent. But when a person pays in money to his banker he has no intention whatever of depriving himself of the use of it. On the contrary, he means to have the same free command of it as if it were in his own house. The customer, therefore, 'lends' his money to his banker, but at the same time has the free use of it. The banker employs that money in promoting trade. Upon the strength of it being deposited with him he buys Debts with his Promises to pay, several times exceeding

the amount of the cash placed with him : and the persons who sell him their debts have the free use of the very same coin which the 'lender' has the same right to demand. Thus the 'lender' and the 'borrower' have the same rights at the same time to demand the same coin. And all banking depends on the calculation that only a certain portion of each set of customers will demand the actual cash ; but that the majority will be satisfied with the mere promise to pay or the Credit.

Banking is a species of insurance : it is practically possible that a banker may be called upon to pay all his liabilities on demand at once, just as it is theoretically possible that all the lives insured in an office may drop at the same instant, as it is theoretically possible that all the houses insured in an office may be burned down at the same instant. A large and sudden demand for money on a bank is termed a **Run**: and a run upon a bank is analogous to a pestilence or a conflagration to an Insurance Office. But all Insurance and Banking is based upon the expectation that these contingencies will not happen. A banker *multiplies* his liabilities to pay on demand, and keeps by him a sufficient amount of cash to insure the immediate payment of all claims which are likely to be demanded at one time. If a pressure comes upon him, he must sell some of the securities he has bought, or borrow money on them.

#### *On the Clearing House*

**12.** If any number of customers of the same bank have transactions among themselves, and give each other Cheques on their accounts, any amount of transactions may be settled by the simple transfer of Credits from one account to another, without a single Coin being required, so long as the receivers of the Cheques do not draw out the Money. The Clearing System is a device by which all the banks which join in it are formed, as it were, into one huge banking institution for the purpose of transferring Credits from one bank to another, just in the same way as Credits are transferred within the same bank.

The Clearing system arose in this way. Every London banker has every morning claims against most of his neighbours : and most of his neighbours have claims against him. It used



to be the custom for every banker, the first thing in the morning, to send out a number of clerks to collect the claims he had against his neighbours, who of course were obliged to keep cash or notes to meet them. The metropolis is portioned out into districts termed 'walks,' and each clerk had to collect all the cheques, bills, &c., in his walk. These claims are called *bankers' charges*, and were paid in Bank Notes : in some cases by cheques upon the Bank of England. Every banker had to keep by him a sufficient amount of Bank Notes to meet the charges of all his neighbours.

This clumsy and barbarous method of settling bankers' charges caused a great waste of Bank Notes. It was stated in evidence before the House of Commons that one Bank alone was obliged to keep £150,000 in Notes for this sole purpose.

About 1775 the inconvenience of sending out to collect these charges led a number of the city bankers to organise an exchange among themselves, on a similar plan to that already in use by the Edinburgh banks. They engaged a room, in which their clerks met and exchanged their mutual claims against each other, and paid only the balance in cash or bank notes. The Bullion Report says that in 1810 there were 46 bankers who cleared ; and that the average amount of cheques, bills, &c., which passed through the Clearing House every day was about £4,700,000, and that all the balances on this account were settled by about £220,000 in bank notes. In 1854 the Joint Stock Banks were admitted to the clearing house, and in 1864, the Bank of England.

The mode of doing business is as follows—Twice a day, early in the morning and again in the afternoon, the clerks meet in the Clearing House, and exchange their mutual claims against each other. Each bank has till a certain hour to determine whether it will honour the drafts upon it : if it does not return them before that time, it is held to have made itself liable on them to the Clearing House.

Each clearing bank keeps an account with the Bank of England, and the Inspector of the Clearing House also keeps one. Printed lists of the clearing banks are made out for each bank, with its own name at the top, and the others are placed in a column in alphabetical order below it. On the left side of the

names is a column headed 'Debtors,' and on the right side a column headed 'Creditors.' The clerk of the Clearing House then makes up the accounts between each bank, and the *difference* only is entered in the balance sheet, according as it is debtor or creditor. A balance is then struck between the debtor and creditor columns, and the paper delivered to the clerk, who takes it back to his own bank. The balance is not paid to or received from the other banks as formerly, but it is settled with the Clearing House, which keeps an account itself with the Bank of England. The accounts are settled by means of a species of Cheque appropriated to the purpose, called *Transfer Tickets*. They are of two colours, white and green : white when the bank has to pay a balance to the Clearing House : green when it has to receive a balance from it. By this admirable system transactions to the amount of many millions daily are transferred from one bank to another without the use of a single Bank Note or Coin. In 1874 Credits to an amount exceeding £6,000,000,000 were thus interchanged between the clearing banks.

In most country towns of any size a similar system of exchanges is organised, and the differences settled by a draft upon London : and in 1858 a clearing house was organised in London for country bankers. All these institutions have the effect, as it were, of constituting all the banks in the kingdom into one vast banking institution, and to transform the monetary business of the country into mere transfers of Credit without the use of Bank Notes or Coin.

#### *On the Economical Effects of Banking*

**13.** Having now given an exposition of the actual mechanism of banking, we can observe its Economical effects.

We observe that the business of banking is to build up a superstructure of Credit several times exceeding the basis of bullion : and this Credit is intended to circulate and produce all the effects of money.

And every one who has understood the mechanism of banking has seen that it practically augments the Capital of the country: Thus John Law says that the Bank of Scotland, on a basis of £10,000 in money, were able to maintain £50,000 of

their notes in circulation ; which he says was in effect so much additional money to the country. He also says—‘ The introduction of Credit by means of a Bank augments the quantity of money more in one year than a prosperous commerce would do in ten.’

So Bishop Berkeley, after proposing many wise queries on Money and Credit, says that a Bank is a gold mine, and asks whether it be not the true philosopher’s stone ?

So Alexander Hamilton, the eminent financier of the United States, when called upon to present a report on the expediency of establishing a National Bank, says—

‘ The following are among the principal advantages of a Bank :—

‘ *First* : the **Augmentation** of the active or productive capital of a country. . . . It is a well-established fact that Banks in good credit can circulate a far greater sum than the actual quantum of their capital in gold and silver . . . . this faculty is produced in various ways—

‘ (1) A great portion of the notes which are issued and pass current as cash are indefinitely suspended in circulation, from the confidence which each holder has that he can at any moment turn them into gold and silver.

‘ (2) Every loan which a bank makes is in its first shape a Credit given to the borrower on its books, the amount of which it stands ready to pay, either in its own notes, or gold or silver, at his option. But in a great number of cases no actual payment is made in either. . . . The same circumstances illustrate the truth of the position that it is one of the properties of Banks to *increase the active Capital of a country*. This additional employment given to money, and the faculty of a Bank to lend and circulate a greater sum than the amount of coin, are to all the purposes of trade and industry an **absolute Increase of Capital**. Purchases and undertakings in general can be carried on by means of Bank Paper, or Credit, as effectually as by an equal sum of gold or silver. And thus, by contributing to enlarge the mass of industrious and commercial enterprises, Banks become nurseries of national wealth—a consequence as satisfactorily verified by experience as it is clearly deducible in theory.’

So J. B. Say says—‘ If Bills of Credit could replace completely

metallic money, it is evident that a Bank of Circulation veritably augments the sum of National Wealth, because in this case the metallic wealth, becoming superfluous as an agent of circulation, and nevertheless preserving its own value, becomes disposable, and can serve other purposes. But how does this substitution take place? What are its limits? What classes of society make their profit of this interest of the *new fund added to the Capital of the nation?*'

'According as a bank issues its notes, and the public consents to receive them on the same footing as metallic money, the number of monetary units increases.

'If, suppose, it issues 100 millions of notes, it will withdraw perhaps 40 millions in specie, which it will put in reserve to meet the payments which may be demanded of it. Therefore, if it adds to the quantity of money in circulation, and if it withdraws 40 millions from circulation, it is as if it added only 60 millions.

'We now wish to learn what class of society enjoys the use of this **New Capital**.'

Say then goes on to explain how this **New Capital** is employed, and who reaps the profit of it.

Thus it is seen that all these writers, and many more might be cited if necessary, recognise the fact that Banking **augments** the Capital of the country.

Nor, probably, are many persons aware of the immense consequences produced by banking: when the goldsmiths began the business of banking, the usual rate of interest was 10 per cent.: and even that was low for the loan of actual money. But they found that they could support a large amount of Credit in circulation, which served the purposes of money: they found their resources *multiplied*, and consequently they began to bid against each other, and so reduced the Rate of Interest that in a very few years the average Rate of Interest was reduced from 10 per cent. to 3 per cent.: about which it may be said to have remained ever since.

One of the consequences of this was to triple the value of all the land in the country: the value of land depends upon the average rate of interest: when the rate of interest was 10 per cent. the land was only worth 10 years' purchase: but now,

when interest is reduced to 3 per cent. : the usual value of land is about 33 years' purchase.

Moreover, it has given a prodigious stimulus to industry of all sorts, agricultural and commercial : because, to effect agricultural improvements, the very first requisite is to be able to obtain capital on very moderate terms : what a prodigious advantage a solid banking system is to a country will be shown in a future section of this chapter.

*On the caution necessary in applying Mathematics to*  
**Economics**

**14.** We now see the caution necessary in applying Mathematics to Economics : and how indispensable it is to make the Mathematics subservient to the facts : and not the mistress of them.

Many distinguished Algebraists, Peacock, Balfour Stewart, and Tait, in acknowledging that Debts are Negative Quantities, put it something in this way:—' If Property possessed or due could be denoted by a number or symbol with a Positive Sign, a Debt could be indicated by a number or symbol with a Negative Sign, or conversely : such affections of Property are correctly symbolised by the signs + and -, since they possess the Inverse relation to each other which these signs require : for if to a person, A, there be given a certain Property or sum of money combined with or added to a Debt of equal amount, his Wealth or Property remains the same as before.'

No doubt, in a certain sense this mode of statement may be technically correct : because, if a person were going to retire from business, he would call in and discharge his liabilities ; and the remainder, if any, would be his fortune.

But such a mode of statement is quite unsuitable for the science of Economics, as is evident when it is applied to the business of Banking. Because, when a banker receives £10,000 in cash from his customers, he is exactly in the position described by these Algebraists. He has received £10,000 in money, but at the very same time he creates an exactly equal amount of Debt against himself. His Property is therefore correctly stated as £10,000—£10,000 : and therefore no doubt he is substantially in exactly the same position as before. He

is no richer than he was before. But that is an extremely incorrect view to take of the matter as regards the Science of Economics : because Economic science has only to do with the number or Quantity of Economic Quantities in existence at the same time, and their exchangeable relations. Now, so long as the Money is left in the banker's hands it is his actual property ; but at the same time his customers have an equal amount of Rights of action against him, which they can put into circulation, and which may effect exchanges, or payments, exactly in the same way and as if they were actual money : and also the banker has the actual money itself, which he can trade with by creating a superstructure of Credit several times exceeding its actual amount. And these banking Credits may also circulate and perform all the functions of Money. The liabilities of a banker, or Banking Credits, are Exchangeable Quantities, which may be sold and transferred : but his Assets also, whether Cash or Paper, are also Exchangeable Quantities, which may be sold or transferred : hence all these Rights of action, while they exist, are independent exchangeable Quantities. When they are paid off and extinguished, they no doubt cease to exist : but everything else when it is destroyed ceases to be an Economic Quantity. Hence these Rights of action are governed by exactly the same rules as any other Economic Quantities.

To show the subtle nature of the question, let us again consider the accounts between a banker and his customers. From the banker's point of view his Assets are his absolute Property (+), and his Liabilities are his Debts (-); and his accounts would be stated thus—

Liabilities.		Assets.
—		+
Deposits. . . . .	£49,600	Cash . . . . .
	£49,600	£10,000
		Bills of Exchange . . . . .
		40,000
		£50,000

But from the Customers' point of view the case is exactly reversed. The banker's liabilities are absolute Property to his customers (+), and they have claims against the banker's assets to that amount (-). Hence from the customers' point of view the accounts would stand thus—

Rights of action.	Banker's assets.
Deposits . . . $\pm$ . . . £49,600 <hr style="width: 10%; margin-left: auto; margin-right: 0;"/> £49,600	Cash . . . $-$ . . . £9,600 Bills of Exchange . . . £40,000 <hr style="width: 10%; margin-left: auto; margin-right: 0;"/> £49,600 Balance + . . . . £400

Hence generally the accounts between a banker and his customers may be stated thus—

Deposits . . . $\mp$ . . . £49,600 <hr style="width: 10%; margin-left: auto; margin-right: 0;"/> £49,600	Cash . . . $\pm$ . . . £9,600 Bills . . . . . £40,000 <hr style="width: 10%; margin-left: auto; margin-right: 0;"/> £49,600 Balance + . . . . £400
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where the upper or lower signs are to be taken according as they are regarded from the Banker's or from the Customers' point of view.

The fact is, that every Obligation necessarily bears the double sign  $\pm$ , which do not cancel each other, as some Algebraists suppose: but the Obligation is a saleable and exchangeable Quantity as long as it exists, and until it is paid off and extinguished.

#### On Cash Credits

**15.** The Credit created by bankers in the operations we have been considering was employed to purchase Commercial Bills, which arose out of the *transfer* of commodities: and it has been seen that they could create Credit to several times the amount of cash in their possession. And some writers imagine that these are the limits of legitimate Credit. We have now to describe a species of Credit of a totally different species, invented in Scotland, and to which the marvellous progress and prosperity of that country is mainly due. It is Credit created not for the purpose of *transferring* Commodities already in existence, but for the express purpose of calling **New** products into existence. It is entirely of the nature of Accommodation Paper: and will prove decisively that Credit is equally applicable to call new products into existence, as to transfer those already existing.

As we have stated elsewhere, the Bank of Scotland was founded in 1695, with power of unlimited Issue, both in amount and denomination. It at first issued Notes of £100, £50, £10 and £5. Though several times recommended to do so, they did not at first issue £1 notes: but about 1704 they began to do so. In 1727, upon the expiration of the monopoly created in the Bank's favour, another Bank was founded, named the Royal Bank.

In the very contracted sphere of commerce in Scotland at that time there were not sufficient Commercial Bills to exhaust the Credit of the Banks. They had, as it were, a superfluity of Credit on hand, and the Royal Bank devised a new means of getting its Credit into circulation.

It agreed, on receiving sufficient guarantees, to open or create Credits to certain amounts in favour of respectable and trustworthy persons.

A **Cash Credit** is therefore a drawing account created in favour of a customer, upon which he may operate in precisely the same manner as on a common drawing account. The only difference being that, instead of receiving interest on the daily balance at his **Credit**, as is very common in Scotland, he pays interest on the daily balance at his **Debit**. It is thus an **Inverse** drawing account.

All these advances are made exclusively in the Bank's own Notes: and they are not issued on the basis of any previous transaction.

Cash Credits are applicable to a totally different class of transactions from those which give rise to Bills of Exchange.

Every man in business, however humble or however extensive, must necessarily keep a certain portion of ready money by him to answer immediate demands, for small daily expenses, wages, and other things. This could, of course, be much more profitably employed in his business, where it might produce a profit of 15 or 20 per cent., instead of lying idle. But, unless the trader knew that he could command it at a moment's notice, he would always be obliged to keep a certain portion of ready money in his own till: or he must be able to command the use of some one else's till. Now one object of a Cash Credit is to supply this convenience to a trader, to enable him to invest the



whole of his Capital in business, and upon good security to furnish him with the accommodation of a till at a moment's notice, in such small sums as he may require, on paying a moderate interest for the accommodation.

Almost every young man commencing business in Scotland does so by means of a Cash Credit. Thus Solicitors, or Writers to the Signet, have occasion from day to day for ready money before they can get in payments from their clients. It is a great impediment to any young man to commence the business of a solicitor without Capital, which must either be his own or furnished by his friends: the Bank provides him with the means.

These Credits are granted to all classes of society, to the poor as well as to the rich. Everything depends upon character. Young men of steadiness and judgment get their friends to become sureties for them on a Cash Credit: this is as good to them as Money; and then they have the means placed within their reach of rising to any extent that their abilities and industry permit them. Multitudes of men who have raised themselves to enormous wealth began life with nothing but a Cash Credit. As one example among thousands, Mr. Menteith, M.P., told the Committee of the Commons in 1826 that he was then a manufacturer employing 4,000 hands, and that with the exception of the merest trifle of Capital lent him, which he soon paid off, he began life with nothing but a Cash Credit.

The Banks usually limit their advances to a certain moderate amount from £100 to £1,000: and they always take several sureties. These cautioners, as they are termed in Scotch Law, keep a watchful eye on the proceedings of the customer, and have the right of inspecting his account with the bank, and of stopping it at any time if irregular. These Credits are not meant to degenerate into dead loans: but they are required to be constantly operated upon by paying in and drawing out.

The enormous amount of transactions carried on by this kind of accounts may be judged of by the evidence given before the Committee of the Commons in 1826. It was then stated that on a Credit of £1,000, operations to the extent of £50,000 took place in a single week. On another Credit of £500 operations to the amount of £70,000 took place in a year. In a very

moderately sized country bank during 21 years operations had taken place to the amount of nearly £90,000,000 : and that there had never been but one loss of £200 on one account. The whole of these operations were by means of pure Credit. At that time it was conjectured that there were about 12,000 Cash Credits granted to persons in Scotland : and that there were about 40,000 persons as sureties who were interested in the integrity, prudence, and success of the others. It was stated that the effects of these on the morals of the people were most remarkable.

But the advantages of these Credits are immensely extended beyond commerce : and their results are more conspicuously and strikingly displayed in the prodigious stimulus they have given to agriculture. They have been the main cause of making it what it is. In the Scottish system of farming leases almost universally prevail. A farmer usually enjoys nineteen years security of tenure : or when leases are granted for the purpose of reclaiming land for much longer periods.

Now let us suppose that there is a quantity of reclaimable land and abundance of people, but unemployed for want of Money or Funds to set their industry in motion.

If any one were to bring £10,000 in actual money into the country and apply it to reclaiming the land, sowing the crops, &c., it would be admitted that the Money was used as Capital : and the produce of the earth would replace the Capital expended.

But as there was no actual money, the Edinburgh banks opened branches in numerous parts of the country, and sent down boxes full of £1 notes, and granted Cash Credits to the farmers on the security of their leases and personal friends. These notes were universally received as readily as Coin. The farmers made their purchases and paid wages in them : and immense tracts of barren land were changed into fertile corn fields. Now these £1 notes were not a substitute for any existing specie : they did not supersede or displace any previously existing money : they were a pure **addition** to the existing money. Now it is exclusively by means of these £1 notes that the greater part of Scotland has been reclaimed from the wilderness : and why have not these £1 notes been Capital as much as the £10,000 in sovereigns ?

Not only has Scotch agriculture been raised to its present state entirely by these Cash Credits, but also public works of all sorts, roads, canals, railroads, docks, in fact everything has been created by the same means. It was stated that the Forth and Clyde Canal was executed by means of a Cash Credit of £40,000 granted by the Royal Bank. So all railroads are executed in a similar way. If a railroad bill is passed, the Directors simply obtain a Cash Credit from the Bank who supply the necessary funds in their own £1 notes.

All these marvellous results which have raised Scotland from the lowest state of barbarism up to her present proud position in the space of 150 years, are the children of pure **Credit**. It is no exaggeration, but a melancholy truth, that at the period of the revolution of 1688, and the establishment of the Bank of Scotland, that country, partly owing to such a series of disasters as cannot be paralleled in the history of any other independent nation, and partly owing to its position in the very outskirts of the civilised world, and far removed from the humanising influences of commerce : divided into two nations, aliens in blood and language, was the most utterly barbarous, savage, and lawless country in Europe. And it is equally undeniable that the two great causes of her rapid rise in civilisation and wealth have been her system of national education and banking. Her system of banking has been of infinitely greater service to her than mines of gold and silver. Mines of the precious metals would probably have demoralised her people. But her Banking system has tended immensely to call forth every manly virtue. In the character of her own people, in their steadiness and industry, and their honour, Scotland has found Wealth infinitely more beneficial to her than all the mines of Mexico and Peru.

The express purpose of these Banks was to create Credit, Incorporeal entities, created out of **Nothing**, for a transitory existence, and then having performed their function, vanishing again into the **Nothing** from whence they sprang. And has not this **Credit** been **Capital**? Will any one, with these results staring the world in the face, believe that it is maintained by writers who are still considered as Economists that the effects of Credit are purely imaginary! That Credit conduces nothing

to the increase of Wealth! That Credit conduces nothing to Production! That Credit only transfers existing Capital: but even if it did no more than that we have seen that Circulation, or Transfer, is admitted by all Economists to be one species of Production! And that those who maintain that Credit is Capital are such puzzle-headed dolts as to think that the same thing can be in two places at once!

Now we observe that all these Cash Credits which have produced such marvellous results are purely of the nature of Accommodation Paper. They are not founded upon any previous transaction, nor upon the transfer of commodities already in existence. They are created for the express purpose of forming new products, which would either have had no existence at all but for them: or, at all events, they would have been deferred for a very long period, until solid money could have been accumulated to produce them. Thus we have an enormous mass of exchangeable Property created by the mere will of the Bank and its customers which produces all the solid effects of actual gold and silver, and when it has done its work, it vanishes again into Nothing at the will of the same persons who called it into existence. Hence we see that the mere will of man has **created** vast masses of **Wealth** out of **Nothing**: and then having served their purpose were **Decreated** into **Nothing**: which are

Melted into air, into thin air.

But their solid results have by no means faded like the baseless fabric of a vision, leaving not a wreck behind. On the contrary, their solid results have been her far-famed agriculture, the manufactures of Paisley, Glasgow, and Dundee, the unrivalled steamships of the Clyde: great public works of all sorts: canals: roads: bridges: docks: railroads: and poor young men converted into princely merchants.

What the Nile is to Egypt, that has her banking system been to Scotland: and it was fortunate for her that the foundations of her prosperity were laid broad and deep before the gigantic fallacy was dreamt of that the Issues of Banks should be inexorably restricted to the amount of gold they displace, that no increase of money can be of any use to a country: and that to issue Paper in excess of specie is robbery!

**On Accommodation Bills**

16. We must now examine a species of Credit which requires great attention, because it is the curse and the bane of commerce : and it has been the great cause of those frightful commercial crises which seem periodically to recur : and yet, though there can be no doubt that it is in many cases essentially fraudulent, yet it is of so subtle a nature as to defy all powers of legislation to cope with it.

We have shown, by the exposition of the system of Cash Credits, that there is nothing essentially dangerous and fraudulent in creating a Credit for the purpose of promoting future operations. On the contrary, such Credits have been one of the most powerful methods ever devised by the ingenuity of man to promote the prosperity of the country. A certain species of this Credit, however, having been grossly misused for fraudulent purposes, and having produced great calamities, we must now examine wherein the fraud and the danger of this particular form of Credit consist.

When a Bill of Exchange is given in exchange for goods actually purchased at the time, it is called a Real Bill, and it is often supposed that there is something essentially safe in it, because, as the goods have been received for it, it is supposed that they are always ready to provide for the payment of it : and that only so much Credit is created as there are goods to redeem it.

This, however, is a very great error, and it is manifest from the description of the system of Credit already given that it is quite erroneous to suppose that the quantity of Credit can only equal in amount the goods bought. A bill, it is true, only arises out of the transfer of goods : but then a fresh bill is created at each transfer. In the ordinary course of business, there will always be in general at least *twice* as many bills created as there are goods. If twenty transfers took place, twenty bills must be created. And it is only the last holder of the goods who would have them, and be enabled to devote the proceeds to the payment of the last bill only. The other nineteen bills must evidently depend upon other sources of payment.

The security, therefore, which is supposed to reside in real

bills, on account of their being founded on the transfer of goods, is shown to be to a great extent deceptive. Let us suppose, however, that A sees that a profitable transaction may be done. The Bank, however, will not, as traders do, make him an advance on his own name alone. It must have *two* names. A therefore goes to B and gets him to accept a bill for his accommodation, and this bill may be taken to the bank to be discounted like any other bill : goods may be bought with the proceeds : and if the transaction is successful the bill will be redeemed in due course.

Stated therefore in this way, there is nothing more objectionable in such an Accommodation bill than in any real bill. The security is exactly the same in the one case as in the other. In the one case goods *have been* purchased which will pay the bill : in the other case goods *are to be* purchased, whose proceeds will pay the bill. In fact, we may say that all Commercial Credit is of this nature, because in this case a Credit is created to purchase the goods whose proceeds are to pay it.

There is therefore clearly nothing in the nature of this species of paper worse than the other, and, when carefully used, nothing more dangerous. Cash Credits, which have been one of the most profitable and safest parts of Scotch banking, and have done so much for the prosperity of the country, are all of this nature. They are created, as we have seen, for the express purpose of stimulating future operations, out of which the Credit is to be redeemed. There is therefore nothing more atrocious, criminal, and vicious in one system than in the other : or, if there is, it must lie in the difference between *have been* and *is to be*.

Nevertheless, as it is indubitably certain that most of those terrible commercial crises which have so frequently convulsed the nation have sprung out of this species of paper, it does merit a very considerable portion of the obloquy and vituperation heaped upon it. It is therefore now our duty to investigate the method in which it is applied, and to point out wherein its true danger consists.

The security supposed to reside in real bills as such, is, as we have seen, exaggerated. But there is at least this in them, that as they only arise out of real transfers of goods, their num-

ber must be limited by the nature of things. However bad and worthless they may be individually, they cannot be multiplied beyond a certain limit. There is therefore a limit to the calamities they cause. But we shall show that with Accommodation Paper the limits of disaster are immensely and indefinitely extended, frequently involving in utter ruin all who are brought within their vortex.

*Explanation of the Real Danger of Accommodation Bills.*  
(Quoted by Mr. Commissioner Holroyd in his judgment in *re Lawrence, Mortimer, and Schrader*.—*Standard*, March 7, 1861.)

17. We must now explain wherein the difference between Real and Accommodation Paper consists, and wherein the true danger lies.

Suppose that a manufacturer or wholesale dealer has sold goods to ten customers, and received ten *bonâ fide* trade bills for them. He discounts these ten bills with his banker. The ten acceptors of the bills, having received value for them, are the principal debtors to the bank; and are bound to meet them at maturity, under the penalty of commercial ruin. The Bank has not only their names on the bills, but also that of its own customer as security. It moreover keeps a certain balance of its customer's in its hands proportional to the amount of the discount allowed.

Even under the best of circumstances an acceptor may fail to meet his bill. The banker debits his customer's account with the bill, and gives it to him back. If there should not be enough, the customer is called upon to pay the difference. If the worst comes to the worst, and its customer fails, the Bank can pursue its legal remedy against the estates of both parties without in any way affecting the position of the nine remaining acceptors, who of course are still bound to meet their own bill.

In the case of Accommodation Bills there are very material differences. To the eye of the banker there is no visible difference between Real and Accommodation bills. They are, nevertheless, very different: and it is in these differences that the danger consists.

In Accommodation Bills, the person for whose accommoda-

tion the drawing, indorsing, or accepting is done, is bound to provide the funds to meet the bill, or to indemnify the person who gives his name. In a Real bill the Acceptor is the principal Debtor, who is bound to meet the bill, and the drawer is a mere surety. In the most usual form of accommodation paper, that of an acceptance, the drawer is the real principal debtor, who has to provide funds to meet the bill : the acceptor is a mere surety : and if he is called upon to meet the bill, he is entitled to sue the principal debtor for the amount.

Now suppose, as before, A gets ten of his friends to accommodate him with their names, and discounts these bills with his banker ; it is A's duty to provide funds to meet every one of these bills at maturity. There is, in fact, only one real Principal Debtor, and ten sureties. Now these ten accommodation acceptors are ignorant of each other's proceedings. They only give their names on the express understanding that they are not to be called upon to meet their bills : and accordingly they make no provision to do so. If any one of them is called upon to meet his bill, he immediately has a legal remedy against the drawer. In the case of Real Bills, then, the Bank would have ten persons who would each take care to meet his own engagements : in the case of accommodation paper, there is only one person to meet the engagements of ten.

Furthermore, if one of ten real acceptors fails to meet his bill, the Bank can safely press the drawer : but if the drawer of the accommodation bill fails to meet any one of the ten acceptances, and the Bank suddenly discovers that it is an accommodation bill, and they are under large advances to the drawer, they dare not for their own safety press the acceptor, because he will of course have immediate recourse against his debtor ; and the whole fabric will probably tumble down like a house of cards. Hence the chances of disaster are much greater when there is only one person to meet so many engagements, than when there are so many, each bound to meet his own.

The real danger to a Bank, then, on being led into discounting accommodation paper is that the position of principal and surety is reversed. They are deceived as to who the real debtor is, and who the real surety is : being precisely the reverse of what they appear to be, which makes a very great difference in



the security of the holder of the bills. To advance money by way of cash credit, or loan with security, is quite a different affair : because the Bank then knows exactly what it is doing : and as soon as anything occurs amiss, it knows the remedy to be adopted. Moreover, it never permits the advance to exceed a certain definite amount, but it never can tell to what length it may be inveigled into discounting accommodation paper until some commercial reverse happens, when it may discover that its customer has been carrying on some great speculative operation with capital borrowed from it alone.

*On the Danger of Accommodation Paper to a Bank*

**18.** We have now to explain how very much more dangerous this species of paper is to a Bank than the worst calamities which can happen from real paper.

We have already pointed out the very common error that Bills of Exchange are paid in money. Bills are very rarely paid in money : they are paid by discounting fresh bills. Thus, in ordinary times, previous Debts are always paid by creating new Debts. No doubt, if the banker refuses to discount, the customer must meet his bills in money : but then no trader expects to do that. He usually has a fixed discount limit ; and if he brings good bills, he has little less than an absolute Right to have them discounted : and if the banker calls upon him to meet his bills in money, it might oblige him to sell goods at a great sacrifice, or might cause his ruin.

However, it is always supposed that the bills discounted are good ones : that is, they could be paid in money if required. Thus, though in common practice very few bills are really paid in money, it is manifest that the whole stability of the bank depends upon the last bills discounted being good ones.

Now, suppose that for some time a customer brings good bills to his banker, and acquires a good character, and thus throws the banker off his guard, owing perhaps to some temporary embarrassment, or wishing to push his speculations, he goes to some of his friends and gets them to accept bills without having any property to meet them. He then takes these accommodation bills to the banker. The banker buys them by giving

him a credit in his books. In course of time these accommodation bills must be met ; and the way he meets them is to create more similar bills. The drawer may be speculating in trade, and losing money every day, but his bills must be met : and there is no other way of doing it than by constantly creating fresh bills to meet the former ones. By this means the customer may extract indefinite sums from his banker, and give him in exchange so many pieces of paper. Now when discounts are low and times are prosperous, this system may go on for many years. But at last a crisis comes. The money market becomes 'tight.' Bankers not only raise the rate of discount, but they refuse to discount as freely as before : *they contract their issues*. The accommodation bills are in the bank, and must be met. But if the banker refuses to discount fresh bills, they must be met in money. But all the property which the speculators may have had may have been lost twenty times over : and so when the crisis comes, they have nothing to convert into money. Then comes the crash. Directly the banker refuses to meet his customer's bills by means of his own money, he wakes to the pleasant discovery that, in return for the money he has paid, he has got so many pieces of paper !

This is the *rationale* of accommodation paper : and we see how entirely it differs from real paper. Because with real paper and *bonâ fide* customers, though losses may come, yet directly the loss occurs, there is an end of it. But with accommodation paper the prospect of a loss is the very cause of a greater one being made : and so on in an ever-widening circle, until the canker may eat into the banker's assets to almost any amount.

It is also clear that if a trader having got a good character may sometimes do so much mischief to a single banker, his capacity for mischief is vastly increased if, from a high position and old standing he is able to discount with several banks : for then he is able to diminish greatly the chances of detection.

This general explanation must suffice here. In an elementary work like this, we cannot go more deeply into the subject : to do so would be more fit for a technical treatise on banking.

**On the Transformation of Temporary Credit into Permanent Capital**

19. We shall now give an example of the application of the doctrine that the *Release of a Debt* is in all cases equivalent to a *Payment in money*, which may surprise our readers, and of which we have not seen any notice elsewhere.

When it is published to the world that the Bank of England has a paid-up Capital of £14,000,000, and that the various Joint Stock Banks have paid up Capitals of a million and upwards, most persons take it for granted that these Banks have these sums paid up in hard cash :

Nevertheless it is a profound error. Of course it is impossible for any stranger to have an accurate idea as to how much of these amounts was ever paid up in actual money : but it may probably be said with safety that not one half of these amounts was ever paid up in real money : and that at least one half of these vast amounts of 'Capital' were never anything more than the *Bank's own Credit turned into Capital*.

To explain this we may observe that the first subscription of the Bank of England was £1,200,000, paid of course in actual money. It was advanced to Government, and the Bank was allowed to issue an equal amount in Notes.

In 1696 the Bank stopped payment ; and its notes fell to a discount of 20 per cent. In 1697, Parliament undertook the restoration of Public Credit : and it was determined to increase the Capital of the Bank by £1,000,000. But none of this was paid up in actual money. Four-fifths were paid up in Exchequer Tallies, and one-fifth in the Bank's own Notes. In pursuance of this Act, £800,000 were paid up in Exchequer Tallies, and £200,000 in the Bank's own depreciated Notes, which were taken at their full value in cash. Thus, of its first increase of Capital, £200,000 of the **Capital** consisted of its own **depreciated Notes**. And the Bank was authorised to issue an amount of Notes equal to the increase of Capital. And at every subsequent increase of Capital the subscribers might pay up in the Bank's own Notes, or in money, whichever they pleased : and the effect was exactly the same : the amount was added to the Capital.

The same thing was done in Scotland. In 1727 the Bank of Scotland increased its Capital. The subscription was paid up partly in the Bank's own notes. An outcry was made against this, but the Directors justly answered—'But the objectors do not at all consider this point, for the payments are many of them made in specie : and Bank Notes are justly reckoned the same as specie when paid in on a call of stock, because, *when paid in it lessens the Demand on the Bank.*'

Here we see that the Directors clearly understood that the *Release of a Debt* is in all respects equivalent to the *Payment of Money*. The Bank had issued its Notes, and were of course Debtors to the holders of them : these Debts were Negative Quantities : when the call was made the subscriber might either **Pay Money** or **Release** the Bank from its **Debts**. At every increase of Capital the very same operation would be repeated : payment in money and in the Bank's own Notes would always be treated as exactly equivalent : and hence we see that at every fresh increase of Capital, a certain quantity of the Bank's own **Temporary Credit** would be turned into **Permanent Capital**.

Thus we see that the Parliament of England and the Directors of the Bank of Scotland, who were probably equally innocent of Algebra and Roman Law, simply from their own mercantile instinct treated this *Release of a Debt* as exactly equivalent to a *Payment in Money*.

Banks, therefore, which issue Notes may increase their Capital by receiving their own notes in payment. But Banks which do not issue Notes may increase their Capital in exactly a similar way. For if the customer of the Bank wishes to subscribe to the increase of Capital, he may give the Bank a cheque on his account. This of course is equally a *Release from a Debt* and an increase of Capital.

If the customer has not sufficient on his account to pay for the stock he wishes to buy, he may bring the Bank bills to discount. The Bank discounts these bills by creating a Credit, or Debt, in his favour ; which is a Negative Quantity, exactly like a Bank note. The customer then gives the Bank a cheque on his account—that is, he releases the Bank from the Debt it has created : and that Debt released then becomes increase of Capital.

This is the way in which the Capital of all Joint Stock Banks is increased, and it may go on to any extent without any payment in Money.

*On Banks of Credit Foncier*

**20.** When, after a long period of inactivity, the energies of a people are suddenly turned into an industrial direction, they find innumerable enterprises which would be profitable, if only they possessed the means of setting them agoing. The quantity of money which was found sufficient for a non-industrial people is now found to be wholly inadequate to the increased demand for it; and the only consequence can be, that if there be a greatly increased demand for the existing quantity of money, the Rate of Interest will rise proportionally, and rise to such an extent as to preclude all possibility of profit from such enterprises, even if effected.

It has, therefore, invariably been found that whenever this takes place multitudes of schemes are set afloat for increasing the quantity of money. This was particularly the case after the Restoration in England, when men, weary of politics and polemics, began to turn their attention to commerce.

Among fields of enterprise at that period, none seemed more promising than agriculture. But, unfortunately, all the available specie was absorbed in commerce: none was to be had for agriculture; or at least only at such rates as to be practically prohibitory.

It was this real want which gave rise to the schemes of Asgill, Briscoe, Chamberlain, and others, for the purpose of turning the land into money, which were so rife at that period.

One of these schemes was attempted to be carried out in 1696. The Bank of England was a Whig project, and had been of great assistance to the Government. William III.'s ministers were partly Whigs and partly Tories. The Bank of England being exclusively connected with commerce, the Tory part of the ministry attempted to get up another Bank whose operations should be confined to agriculture. Every one, of course, has read Macaulay's account of this Land Bank and its failure.

There were, no doubt, defects in the scheme which fully

accounted for its failure : but the want was very real : and the idea perfectly sound.

Among the projects of basing Paper Money on land, the one which obtained the greatest celebrity was John Law's, which he offered to the Scotch Parliament in 1705, and which they fortunately rejected : but which was carried out in France under the name of the Mississippi scheme in 1721.

This is not the place to give the details of Law's scheme, which is done in a future chapter : but ten years after the failure of Law's scheme in France, the Scotch Banks, by the admirable invention of Cash Credits, pushed Credit to the utmost extent of its legitimate limits, and realised all that was practicable in the various schemes of Asgill, Chamberlain, Briscoe, and Law. And, as we have seen in a former section, it is to these Cash Credits that the principal progress of Scotland in agriculture and all public works is due.

**21.** At the close of the seven years' war the proprietors in Silesia found themselves in a state of inextricable embarrassment. The ruin and destruction caused by the war, and the low price of corn caused by the general distress, made them unable to meet their engagements. Interest and commission rose to 13 per cent. They obtained a respite of three years to pay their debts. To alleviate the distress arising out of this state of matters a Berlin merchant named Büring invented a system of Land Credit, which has been extensively adopted in Germany, Russia, Poland, and lastly in France.

Proprietors of land can no doubt borrow money on Mortgage : but in every country such transactions are attended with many inconveniences. They have many expensive formalities to undergo, such as investigation of title, &c. Moreover, the difficulties and expense of transfer are very great : as each purchaser has to undergo the same investigation and expense. If the debtor fails to pay, the process of obtaining redress, or possession of the land, is usually very troublesome and expensive. The consequence of all these obstacles is of course greatly to raise the cost of obtaining money on Mortgage.

The system of Government Funds suggested to Büring the idea of creating a similar species of Land Stock. The State

could usually borrow much cheaper than the landlords, because the title was sure and indisputable, and there was no impediment to their negotiability.

Büding, therefore, conceived the idea of substituting the joint guarantee of all the proprietors for that of individuals, and establishing a book in which the Land Stock should be registered and be transferable, and the dividends paid in exactly the same way as the public funds. The Credit of the association was therefore always interposed between the lender and the borrower. The purchasers of the stock looked only to the Association for the payment of their dividends : and the borrowers paid all interest, &c., to the Association ; which took upon itself all questions of title and security. The whole of these Obligations were turned into stock transferable in all respects like the public funds. Such is the general design of these Associations : they simply turn mortgages into transferable stock.

These Associations have been very widely introduced into various countries, and they are of different organisations, which would be too minute to insert into an elementary work like this : we must refer those who want fuller details to M. Josseau's *Traité du Crédit Foncier*.

All these Associations make their advances in small bonds, chiefly varying from £10 to £100, and bearing interest at  $3\frac{1}{2}$  or 4 per cent., together with a small sum to redeem the principal.

These institutions have had the most remarkable effect in promoting the agriculture of the countries they have been founded in. In fact, they are the counterparts of the Scotch system of Cash Credits : and are the realisation of the crude ideas of Asgill, Briscoe, &c., while avoiding their fundamental fallacies. These Obligations have maintained through all crises, monetary, war, and revolutionary, a steadiness of value far beyond any other public securities, whether Government or commercial. M. Josseau says that in a population of about 27,827,990 the negotiable *Lettres de Gage* or *Pfandbriefe* amounted to about 540,423,158 francs. In 1848, when all public securities fell enormously, owing to the revolution, the *Pfandbriefe* kept their value better than anything else. The Prussian funds fell to 69 : the shares of the Bank of Prussia to 63 : the railroad shares fell from 30 to 90 per cent., whereas the Land Credit bonds, bearing

3½ per cent. interest in Silesia and Pomerania, stood at 93 : in West Prussia at 83 : and in East Prussia at 96 : in 1850, those bearing 4 per cent. interest were at 102 in Posen, and at 103 in Mecklenburg.

**22.** Banks of Credit Foncier have never been formally introduced into Great Britain. In Scotland their practical effects have been anticipated by the invention of Cash Credits by the Banks. By the excellent system of registration of titles to land which has long been in use in that country, all difficulties which have been felt in other countries with regard to secret mortgages are obviated. The rigorous system of entails, however, which prevailed in that country for a long period counterbalanced the good that might have been done. Successive Acts, however, were passed to mitigate these evils : and the progress of the country has been correspondingly rapid.

In England many obstacles, political and legal, tended to retard and impede the application of Capital to the improvement of land. When the desire for it existed different Insurance Companies were usually resorted to, and it has been supposed that about 80 or 90 millions were advanced to landowners by the various offices. These therefore performed to a certain extent the functions of Banks of Land Credit : only the securities they take are not negotiable.

These facilities, however, not being sufficient, for reasons arising out of the tenure of land, an Act was passed, 3 & 4 Vict. (1840), c. 55, to enable the owners of settled estates to charge them with Annuities to redeem advances made for draining. Tenants for life were authorised to petition the Court of Chancery to enable them to borrow money to drain their estates, to be paid off by instalments, in not less than 12 and not more than 18 years, with 5 per cent. interest. But the Court was not to allow such advances to be made unless the value of the lands would be increased by at least 7 per cent.

The repeal of the corn laws in 1846 naturally threw the landed interest into a state of the greatest alarm. It was seen that their principal hope of meeting the effects of low prices was in agricultural improvements. In that year an Act was passed to authorise the advance of £2,000,000 for Great Britain, and



£1,000,000 for Ireland, by way of Exchequer bills, to promote the improvement of land by draining, to be redeemed by a rent-charge of  $6\frac{1}{2}$  per cent. for 22 years. These Exchequer bills exactly represented the *Pfandbriefe* of the German Land Banks.

This operation, excusable under the particular circumstances of the case, was, however, contrary to sound principle, because the State had no business to make advances to one species of industry rather than another. The plan was successful: and in 1849 an Act was passed to facilitate advances on a similar plan by private persons (Act, Statute, 1849, c. 100). The Inclosure Commissioners were appointed to act as the intermediaries between those who wished to lend and those who wished to borrow. Some private Companies were formed for this purpose, and they obtained private Acts: thus becoming Banks of Credit Foncier, except that their bonds were not made negotiable.

The recent depression of the agricultural interest, partly owing to a series of bad harvests, but also very much to the unlimited supplies of foreign corn and meat, which have every appearance of proving permanent, render it of paramount importance that every means should be adopted of developing the productive power of the land. The very first essential is to obtain Capital on as reasonable terms as possible. The most natural method would be of adopting the Scotch system of Cash Credits: but as that would require an essential modification of the system of land tenure in England, and also the power of issuing £1 notes by the Banks, to which there appear to be invincible objections in the present banking system of England, there does not seem much chance of this being adopted.

The only other alternative is the formation of Banks of Land Credit, on the model of those which have proved so eminently successful on the Continent.

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